THE TIOGA GROUP

INLAND PORT FEASIBILITY STUDY

Project No. 06-023

Inland Port Case Studies

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Introduction

Purpose and Scope

This Appendix presents 29 case studies of inland ports and related developments. Although the projects differ widely they have one key element in common: the goal of developing economic activity around transportation infrastructure at inland points.

These case studies were chosen on the basis of their analytic and instructive value. No claim is made that this list is exhaustive.

The information presented here was drawn from a variety of sources, including industry publications, project websites, staff and consultant reports, presentations, and personal contacts. The availability of information is inevitably uneven.

The case studies have been organized into groups.

Satellite Marine Terminals

- Virginia Inland Port
- Metroport, New Zealand

Satellite marine terminals are the only type of inland ports that act as extensions of specific seaports. Both Virginia Inland Port and Metroport in New Zealand are owned and operated by the Ports of Virginia (Norfolk) and Tauranga. Both are connected to their parent ports by rail intermodal shuttles.

Multimodal Logistics Parks

- Alliance, Texas
- Port of Huntsville, Alabama
- Rickenbacker/Columbus Inland Ports
- Logport, Duisburg Germany

These developments have used multi-modal infrastructure (air-rail-truck, or sea-rail-truck) as the core of business/industrial parks. Whereas conventional business or industrial parks seek office buildings or manufacturers as "anchor tenants", these "logistics parks" use the transportation infrastructure as a selling point. These developments have much in common with the shippers, consignees, and ancillary businesses that surround seaports. They are "inland ports" without being extensions of seaports.

Rail Intermodal Parks

- Joliet Arsenal (JADA)
- Global III, Rochelle, IL

- Port of Quincy, WA
- CILC, Shafter, CA
- Neomodal, Stark Co., Ohio
- Detroit Intermodal Freight Terminal
- Port of Montana

Almost all rail intermodal terminals are built and owned by the railroads. In a very few cases public or public/private agencies have created intermodal terminals in the hopes of encouraging development in the same manner as the multimodal logistics parks. Of the rail intermodal initiatives, only the Joliet Arsenal project has attracted significant new business development beyond the terminal itself. Some of the other projects have achieved modest progress to date, some are dormant, and some have yet to start.

Logistics Airports

- Europort Vatry (France)
- San Bernardino International
- Kelly USA/Port of San Antonio, TX
- Southern California Logistics Airport (Victorville)
- March Global Port
- Global TransPark

These "logistics airport" developments have as their core an all-cargo (or primarily cargo) airport. Europort Vatry was purpose-built, Global TransPark converted Kingston Regional Airport, and the others are former military air bases. (Rickenbacker, Huntsvile, and Alliance Texas also have cargo airports, but have rail intermodal terminals as well.) Some of these efforts have attracted significant logistics-based development, notably Europort Vatry. Others have primarily attracted aircraft industry firms with a need for runway access.

Networks and Corridors

- PANYNJ Port Inland Distribution Network
- Heartland Corridor
- North American Inland Ports Network

These projects link together inland ports, seaports, and related developments into operating networks or corridors. Some of the other case study developments, for example, are part of the Heartland Corridor or the North American Inland Port Network. These networks and corridors have been included to illustrate the potential of linking individual initiatives.

Shuttle Services

- Albany, NY Barge Service

- Worcester-Keary Rail Shuttle

Since rail or barge shuttles are an integral part of many inland port concepts, these two case studies of the shuttles themselves (rather than of the facilities they serve) have been included in this Appendix. The Albany Barge Shuttle has been discontinued; the Worcester-Keary rail shuttle continues to operate.

Trade Processing Centers

- Richards-Gebaur
- Port of Battle Creek
- Kingman, AZ ITPC
- Greater Yuma Port Authority

U.S. Customs and Border Protection has encouraged the concept of International Trade Processing Centers (ITPCs) to shift some of the trade-related activity away from congested ports and border crossings. The case studies presented here involve proposed ITPCs; non have been built or are in operation. These proposals differ from the others in that the development attraction is presumed to be a regulatory function, "trade processing" that requires a physical location rather than a transportation or logistics function.

Economic Development Initiatives

- KC SmartPort

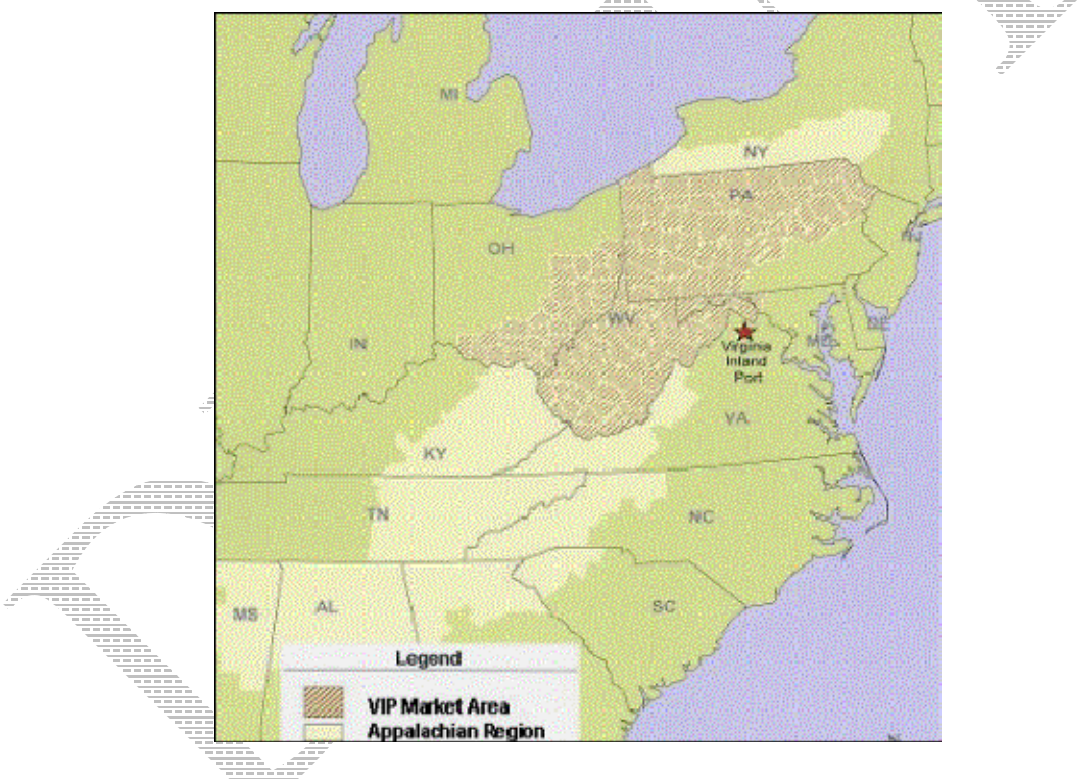
KC SmartPort is unique among the case studies as not involving a specific facility or site. KC SmartPort is an economic development initiative designed to bring business to Kansas City by virtue of the area's transportation and logistics capabilities.

1. Virginia Inland Port

Overview

The Virginia Inland Port (VIP) concept was first explored in the early to mid 1980s with the project's main purpose being to capture a larger market share for the Port of Virginia (Norfolk). At that time, cargo from the Ohio Valley was primarily being sent through the Port of Baltimore. The market expansion was intended to be a powerful sales tool in convincing additional ship lines to add Norfolk to their schedules or to increase their business in Virginia. Initial examination of this Ohio Valley market revealed a potential for 100,000 annual containers. The Virginia Port Authority (VPA) determined that one way to attract this business was to build an intermodal facility close to these areas that could be linked by rail to the port area. Exhibit 1 illustrates the Appalachian Region market area for the VIP.

Exhibit 1: VIP Market Area



Planning for the inland port began in earnest in 1984 and involved a series of meetings among representatives of all transportation modes, shippers and brokers. VPA and Norfolk Southern (NS) reached an agreement in January of 1987 enabling the VPA to proceed with the inland port development. Several sites were examined with NS officials and local area leaders before the eventual site in Warren County, VA (Exhibit 2) was selected. This site has easy access to I-66, I-81 and ADHS Corridor H, and has 1,400 feet of common boundary with Norfolk Southern. The initial concept was to run a dedicated NS train three days per week between Hampton Roads and VIP. It was anticipated that this level of service would attract approximately 20,000 international containers annually.

One advantage was that the funding fell into place rather easily and did not require any borrowing to support VIP construction. The original funding was easier than expected due to a series of fortunate circumstances, including: the election of a new Governor committed to transportation infrastructure, a special session of the General Assembly, and a report from the citizen advisory Commission on Transportation. Legislation was passed in 1986 to create a Transportation Trust Fund. The inland port was constructed with money entirely from the Trust Fund. The original $10.75 million and subsequent $2.25 million was paid in cash, on a pay-as-you-go basis. Thus, Virginia managed to avoid incurring debt in the construction of the intermodal facility.

The Virginia Inland Port started operations in 1989 with initial annual volumes of 8,000–9,000 containers. The VIP's annual throughput volume approached the targeted level of 20,000 international containers annually in 1999 and was near that level through 2001. Logistics Today reports volume at 14,000 moves in 2003, some 28,000 in 2004, and 35,000 in 2005.

Exhibit 2: VIP Site

Services

Norfolk Southern (NS) railroad provides the intermodal service between two Virginia Port Authority (VPA) Terminals, Norfolk International Terminal (NIT), and Virginia Inland Port (VIP).

- NS provides the train service and rail cars.
- VPA owns both terminals. VPA is an independent corporation created by the commonwealth of Virginia for the purpose of operating the state's ports and able to execute contracts with labor unions.
- VPA operates both terminals through its subsidiary, Virginia International Terminals (VIT).
- The terminal in Front Royal is pictured in Exhibit 2. Its menu of services includes a warehouse facility, mechanical repairs, USDA inspections, SGS inspections, pool chassis, generator sets for refrigeration units, as well as power hook ups. The

facility is a U.S. Customs-designated port of entry, and the full range of Customs functions is available.

- The marine carriers are the customers of VIT. The cargo largely remains in bond and clears customs in Front Royal. Some of the cargo may move on a through marine bill of lading with final destinations in Northern Virginia, West Virginia, Western Maryland, Pennsylvania, and Ohio.
- VIT contracts with NS to provide a second morning train service scheduled six days per week in each direction. VPA markets this service to marine carriers as a part of its terminal service package.

Norfolk Southern has a flat rate charge to VIP for box movement to VIT shown in the VIT tariff (Exhibit 3).

Exhibit 3: VIP Tariff Rates, February 2006

	Loaded	Empty
TOFC	$449.00	$366.00
COFC	$271.00	$188.00

The original arrangement between NS and VIP when VIT opened in 1989 was a 3-day-per-week train, take or pay. That has evolved to a flat rate between Hampton Roads and VIP. The containers can move on any NS train that runs to or through Front Royal, but there is a train each way 5 days per week that originates at VIT to VIP as well as a reverse train from VIP to VIT.

The highway distance between VIT and VIP is about 220 miles which makes the published load/empty round trip COFC rail rate less than $1.05 per mile, much less than any conceivable motor carrier drayage rate. The TOFC rate on the same basis is $1.85 per round trip mile which would indicate that VIT and NS would not really be interested in TOFC in this market. NS rail mileage is 400–450 miles one way, so NS is paying a circuitry penalty in this lane of about 100%.

In Norfolk, the cargo can originate at the on-dock rail terminal at NIT, and at NS's Chesapeake, VA facility. Shipments from Front Royal terminate at NIT. The Front Royal terminal is located less than a mile from I-66 and less than five miles from I-81. The thick green line on the map in Exhibit 4 illustrates the NS rail route between the terminals.

Exhibit 4: VIP Location

For the most part westbound containers are loaded at the on-dock rail facility at NIT. In addition, containers can be drayed between the marine terminals in Portsmouth and Newport News to the NS terminal in Chesapeake, VA. The NS route to Front Royal is via Roanoke, VA, then north on its line which runs along I-81. Cut off for receipt of cargo at Chesapeake is 10:00 p.m. Containers or trailers are available in Front Royal at 7:00 a.m. the second morning. The operation is reversed to move containers from Front Royal to Norfolk with service offered only to NIT.

Competition

The following is an excerpt from, *VIRGINIA INLAND PORT; The Case for Moving a Marine Terminal to an Inland Location*, which was prepared for the American Association of Port Authorities Professional Port Manager Program by J. Robert Bray, Executive Director, Virginia Port Authority.

> *The original marketing plan was based on aiding ship lines who had abandoned Baltimore to maintain their Ohio Valley base of business which the lines had previously carried over Baltimore. The lines at the time (1989) were carrying cargo to and from Baltimore by truck or barge. VIP rail charges were less, so in theory VIP gets the cargo. … As is always the case, VIP truck and barge competition dramatically cut their rates. In the years following the opening of VIP, truck and barge costs plummeted by as much as $125 per container. This caused an immediate effort on our part to concentrate on Virginia business found in and around VIP. We have succeeded in this endeavor. While reacting to changed transportation costs, we continued to pursue marketing presentations to all current and potential ship line users. These meetings focused on market research, operational flexibility, closed loop on equipment,*

rate comparisons and cost savings over existing liner methods for handling intermodal containers. We pitched - if it reaches VIP - it is on the ship.

Our task has been made difficult by a reluctance on the part of some customhouse brokers and international freight forwarders to assist and some have continued to insist on a Baltimore bill of lading; some ship lines are hesitant to offer a VIP bill of lading without an arbitrary charge to cover the rail movement; and the rationalization of equipment and services has enabled ship lines the option of handling cargo from more ports at a reasonable cost.

Regional Benefits

Since VIP opened, it has spurred nearly $600 million in private sector capital investments. It is estimated that 95 percent of the business generated by the VIP is new business for the Port of Virginia-Hampton Roads (i.e., this freight traffic has been captured from other ports).

The local community expected that the VIP facility would stimulate regional economic development. This local expectation caused VPA to shift from the original plan concentrated on international containers to a broader program encompassing domestic rail service and regional economic development (increasing jobs, wages and taxes), which is its core mission to the Commonwealth of Virginia. Operations at the VIP are conducted by about 17 full-time employees. The VIP has been generating operating profits. Its establishment is associated with strengthening the competitive position of Virginia's ports relative to their East Coast competitors, and has resulted in increased business investment, and employment in nearby Appalachian Region areas.

The VIP terminal has been in operation since 1989 with rail intermodal service from and to the Port of Virginia. Over that time, 24 major companies have located distribution centers near VIP with investment of $600 million and over 6.25 million square feet of buildings. These firms actively take advantage of the Port to ship a variety of products overseas, including plastics, medical supplies, apparel, auto parts, furnishings, food, paper, and four-wheel-drive vehicles. *(Virginia Port Authority, 1999)* Logistics Today (December 2005) reports that, "*Although imports flow through VIP, [export] poultry, logs and lumber represent a major part of the facility's freight.*"

Long-Term Direction

The Virginia Inland Port seeks to increase container volume by marketing the facility and its benefits to shippers. Marketing plans are carried out in conjunction with economic development efforts based on the freight mobility the VIP offers the region. In 1995, a long-term VIP Mission and Strategic Plan was created that advocated making the inland port the focal point for regional economic activity. To this end, the Virginia Port Authority created an Economic Development Center, including an administration building and warehouse facilities at the VIP.

Needs and Next Steps

Any VIP infrastructure improvements and expansion will require additional funding. However, the VIP may not need to rely solely on public financing for any expansion funds; the facility has

been self-sufficient and operating profitably since 1994. As of this writing expansion is underway. Beyond targeting and increasing market-share from within the existing VIP market area, the Port of Virginia also seeks to expand the VIP market area and customer base. This plan will involve significant area and regional economic development efforts. In conjunction with Washington-Dulles International Airport, ongoing efforts have been made to develop the corridor between the two facilities as a principal freight distribution center/hub. This involves attracting warehouse and distribution facilities (and ancillary support infrastructure) to the area. Expansion of the Foreign Trade Zone to land and facilities surrounding the VIP is also seen as a positive step for the Port. Such an FTZ expansion would include land owned and operated by various economic development agencies in the region.

Success Factors

This operation has been successful because:

- There was **Capital and Commitment** to develop the terminal driven by the strong resolve of the Commonwealth to develop its ports. As Mr. Bray reports, *During this time frame, the Virginia General Assembly created a Transportation Trust Fund (TTF). The TTF is composed of a set-aside of certain taxes on gasoline, titling taxes and sales and use taxes. The VPA receives 4.2 percent of the TTF as the Commonwealth Port Fund (CPF). This CPF is used for capital development and maintenance by VPA and this certain source of funding made possible serious consideration of an inland port.*
- The **Marketing Plan** was viable and flexible enough to accommodate change. While the original target market was Baltimore-billed Ohio Valley cargo handled over the Port of Norfolk, the market that has emerged is based on improved transportation access to the region and its impact on the local economy. The regional economic development was created by the VPA's terminal infrastructure investment and the availability of necessary terminal services to support the marketing plan described above.
- Norfolk Southern is a **willing Class 1 railroad**. Norfolk Southern has a long-standing and symbiotic relationship with the Virginia Port Authority which supported the development of VIP. There was a commitment to run the train and absorb the train operating cost even during the long start up period.

2. Metroport, New Zealand

Overview

Established in 1999, Metroport Auckland is New Zealand's first inland port focused on landside container flow. Tranz Rail links this inland port to the Port of Tauranga. Metroport is located in South Auckland's manufacturing region approximately 140 miles away from the maritime port. (Exhibit 5)

This facility is a Customs bonded site, meaning that imports do not undergo Customs transactions at the maritime port, but are brought to the inland port where the necessary federal transactions are made. Metroport does not have Customs officials on-site, but paperwork is handled at the city office. Agricultural goods are handled in the same way at Metroport.

Tranz Rail owns the land at the Metroport site. However, the land improvements and the computer system are owned by the Port of Tauranga. The port is publicly listed and the main source of funding for Metroport comes from the fee charged per container handled.

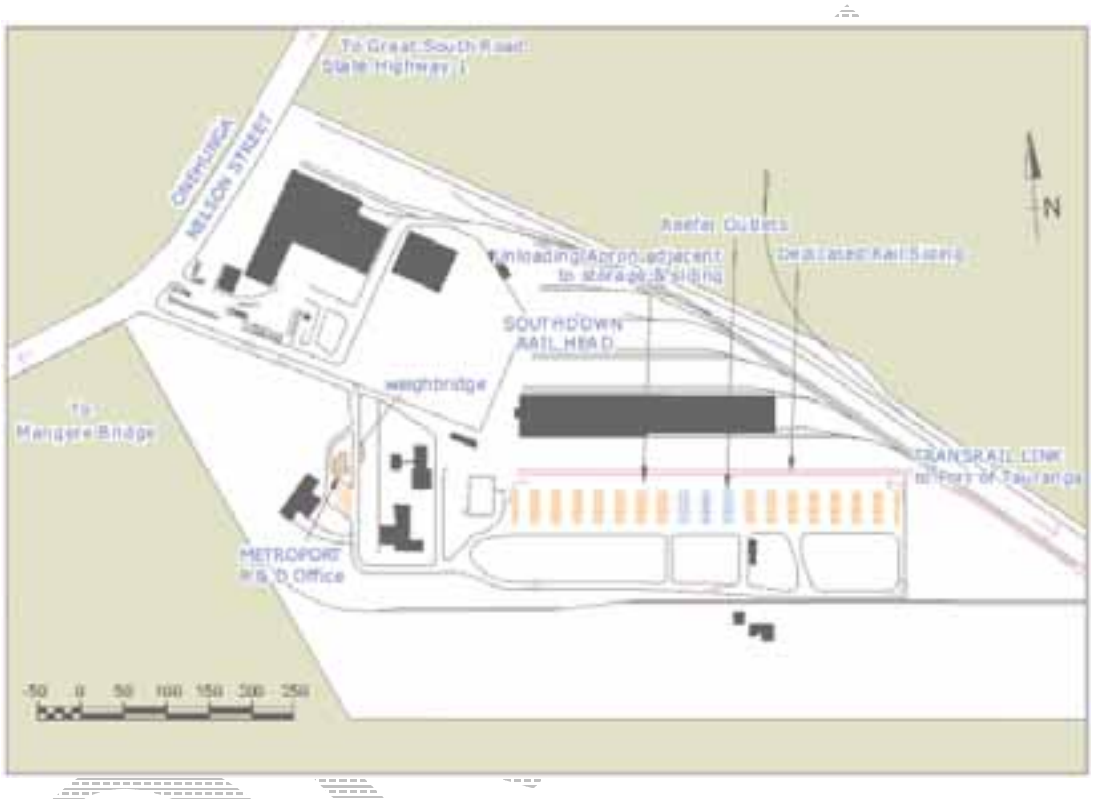
Exhibit 5: Metroport Auckland, NZ

The Port of Tauranga is New Zealand's fastest growing port. A key part of maintaining its competitive position, particularly with the Port of Auckland itself, was to provide an efficient way to deliver the containers from Tauranga to Metroport in Auckland after they were unloaded.

Services

Metroport (Exhibit 6) operates by contracting with shipping lines that call at the Port of Tauranga. When the import cargo arrives, it is off-loaded and railed to Metroport. At Metroport, containers clear customs and are trucked to their final destination. The reverse process applies to exports arriving at Metroport. The trip from Metroport to the Port of Tauranga takes approximately 4 hours on the main north-south trunk rail line in New Zealand.

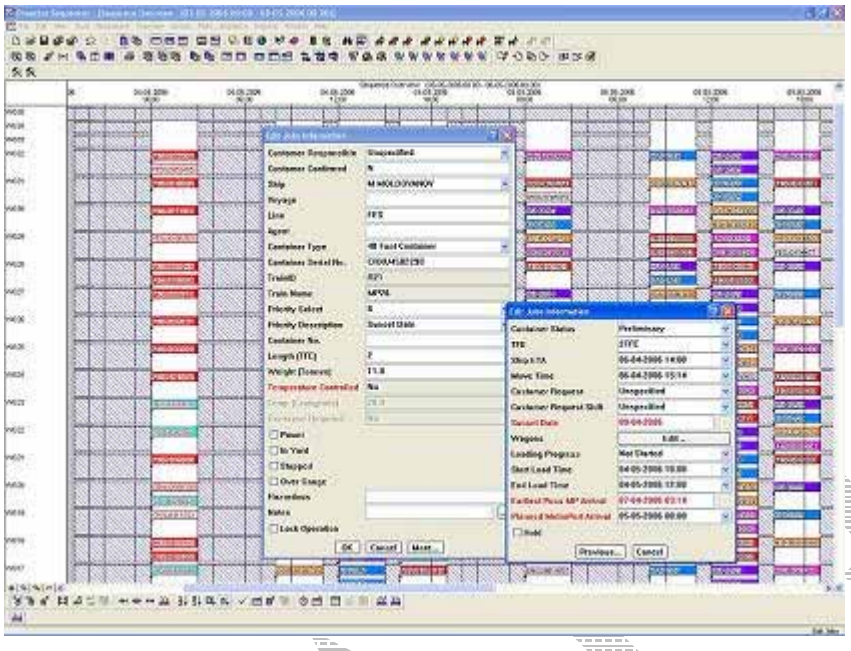
Exhibit 6: Metroport Facility Plan



The Port needed a system that could automatically allocate containers to cars within a train, taking into account the train capacity, loading rules, and service level objectives. In addition, the system would need to fully integrate with the other software systems that dealt with vessel arrival schedules, container details (Navis SPARCS), and the proposed train schedules and consists. They also wanted to provide a web portal to allow customers to manage the arrival times of their containers.

A commercial system called Preactor was customized. Each container was represented as a bar, color coded for easy identification and a train load as a set of bars arranged vertically with the last car at the top. The train schedule is read in together with container arrival times and the customer's expected delivery dates (Exhibit 7).

Exhibit 7: Preactor Scheduling System



About 48 hours before the vessel ETA the customized Preactor scheduling rule assigns the containers to each car in each train and generates a train plan which is published to a web site. The system is called ShuttleSelect and allows customers to see exactly when their cargo is due into MetroPort Auckland. In addition they can modify delivery time to a cut off point of 6 hours to vessel arrival.

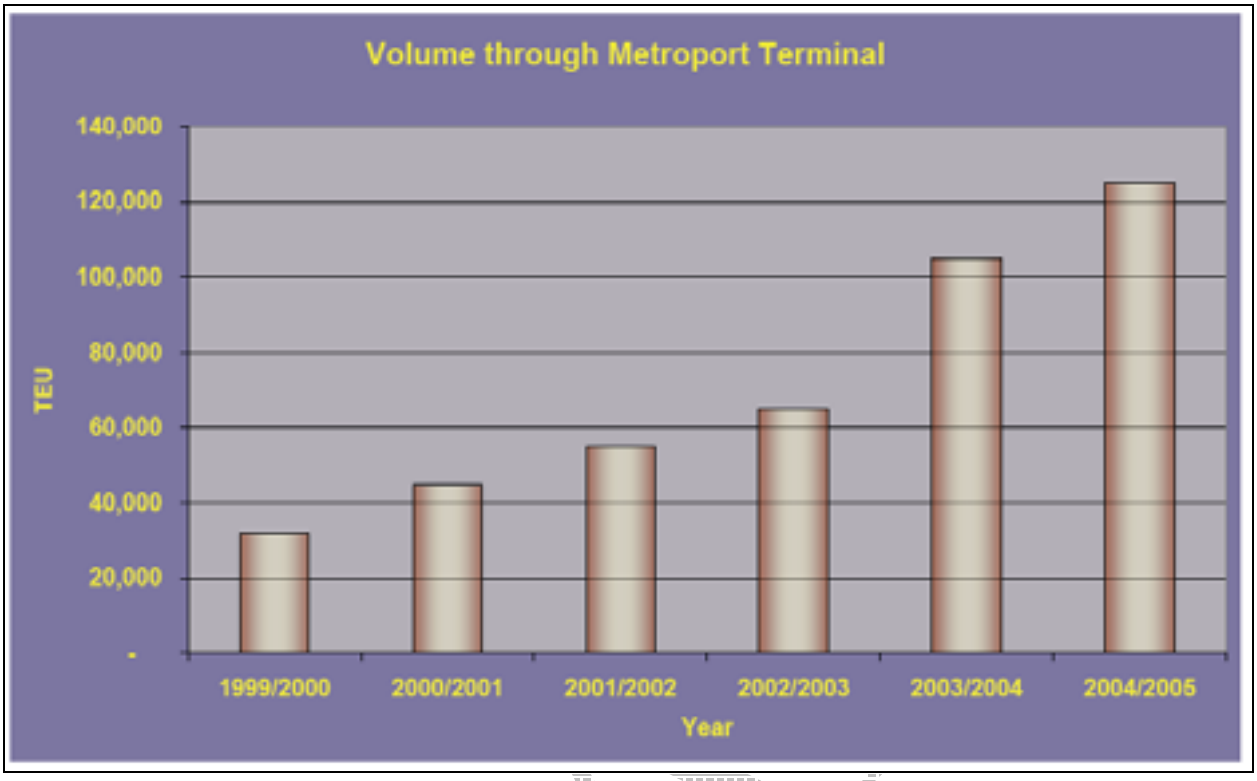
For the customer the advantages of ShuttleSelect are:

- It allows them to select a time for container deliveries from Tauranga to Auckland. Changes are possible as needed within the 'change window' of 6–48 hours prior to vessel arrival.
- By knowing container delivery times in advance, ShuttleSelect allows them to better plan their own unloading and distribution processes. Customers can prioritize urgent deliveries and stagger the rest as required, taking advantage of longer free delivery time.
- They can, by managing their own containers on-line, eliminate extra steps in the process and therefore save time and money.

Success Factors

Although not emphasized in the descriptions, Metroport is an extension of the Port of Tauranga's commercial presence in the Port of Auckland's market (much like VIP's situation relative to the Ports of Norfolk and Baltimore). Metroport is therefore a commercial initiative, not a public effort to reduce truck travel or improve system efficiency. Tauranga has traditionally been an export port, with Auckland dominating the import trade. Metroport has successfully grown the Port's cargo share in the Auckland area.

Exhibit 8: Metroport Cargo Growth



Ease of use and rail service frequency are key factors in Metroport's success. The rail shuttle operating over Tranz Rail between Tauranga and Metroport has three departures each way on most days, with two to three on Monday and four on Sunday. This is a very high level of service for any rail intermodal operation.

3. Alliance Texas Logistics Park

Overview

Alliance Texas (Exhibit 9) is located 15 miles north of downtown Fort Worth and 15 miles west of Dallas/Fort Worth International Airport. Covering some 15,000 acres, Alliance is one of the largest and most successful master planned developments in the country. Existing air, rail and highway systems have been greatly expanded and upgraded in order to connect Alliance with a full range of domestic and international markets. Business activity is further enhanced at Alliance by a foreign trade zone, an enterprise zone, a world trade center, high-tech telecommunications facilities (with state-of-the-art fiber optics), and an inventory tax exemption.

Hillwood, a Perot Company, operates the business park which now houses more than 140 companies, including 62 from the Fortune 500, Global 500 and Forbes List of Top Private Companies. These firms have invested more than $5 billion to build 24.4 million square feet and create 24,000 fulltime jobs. Many of these are also served by the BNSF intermodal facility.

Exhibit 9: Alliance Logistics Park

Alliance is divided into multiple sub-developments:

- Alliance Center, a 2,600-acre complex that encircles the airport and is geared primarily towards aviation-related enterprises.
- Alliance Commerce Center, a 300-acre business park for manufacturing and high-tech firms.
- Alliance Air trade Center, a 52-acre air cargo development with direct access to the Alliance Airport runway system, direct access to Interstate 35W, and over 250,000 square feet of space for cargo companies.
- Alliance Gateway, a 2,400-acre distribution, manufacturing, and office sector for large distribution and industrial firms.
- Alliance Advanced Technology Center, a 1,400-acre technology complex.
- Heritage Reserve at Alliance, which offers locations for research and development facilities in a natural setting.
- Westport at Alliance, a 1,500-acre industrial and distribution sector located on BNSF's main line and intermodal terminal.
- Alliance Crossing, a 170-acre retail complex.

Major ground transportation routes through Alliance include I-35W and State Highways 170 and 114. Dallas/Fort Worth International Airport is only 20 minutes travel time to the east.

A variety of economic incentives have been made available to spur business development at Alliance. These include a foreign trade zone designation, a triple Freeport tax exemption, and enterprise zones that encourage job creation and capital investment in designated areas for a period of seven years. Alliance operates its own 3PL firm, called Alliance Operating Services. AOS provides such services as foreign trade zone assistance, overseas container processing and third-party warehousing. A number of other 3PL firms also operate at Alliance, producing a wide range of possibilities for tenants seeking to outsource part of their operations.

Educational and technical training programs also are provided. The Alliance Opportunity Center offers technical training for companies located at the park.. Texas Christian University's TCUglobalcenter at Alliance offers advanced degrees and provides conferencing facilities.

Alliance also offers the services of TeraSpace Networks to build and market data centers across the country. TeraSpace has recently completed the first phase of a 1.1-million-square-foot internet data center on the eastern side of Alliance. The company also provides power and fiber optic connectivity to more than a dozen web-hosting and carrier-hotel companies that offer their services to Alliance tenants.

Companies originally chose to locate at Alliance because of its availability of relatively cheap developable land, access to a large work force, access to intermodal facilities, and economic inducements. Alliance has been labeled an "e-commerce fulfillment center" because of the prominence of companies that are engaged in filling business-to-business and business-to-consumer orders via the internet. The most prominent of these businesses include At&T Wireless, Ameritrade, W.W. Grainer, Dell Computer, and UPS Logistics Group.

About 4.38 billion dollars have been invested so far in Alliance, 96.7% from private sources. This investment has translated to 18,167 permanent jobs created and $147 million in property taxes generated over the last ten years.

Rail Intermodal Terminal

On the western border of the park, BNSF Railroad operates a 735-acre intermodal yard. Alliance has designated 1,500 acres immediately east of the intermodal yard for rail clients to locate distribution centers. Since 1994 BNSF intermodal terminal services have been provided at a facility operated in partnership.

The BNSF Alliance intermodal facility (Exhibit 10) is located on the main line of the BNSF and is comprised of 280 acres and about 2000 parking spots. There are an additional 160 acres available for expansion. In 2005 the terminal handled 573,000 lifts.

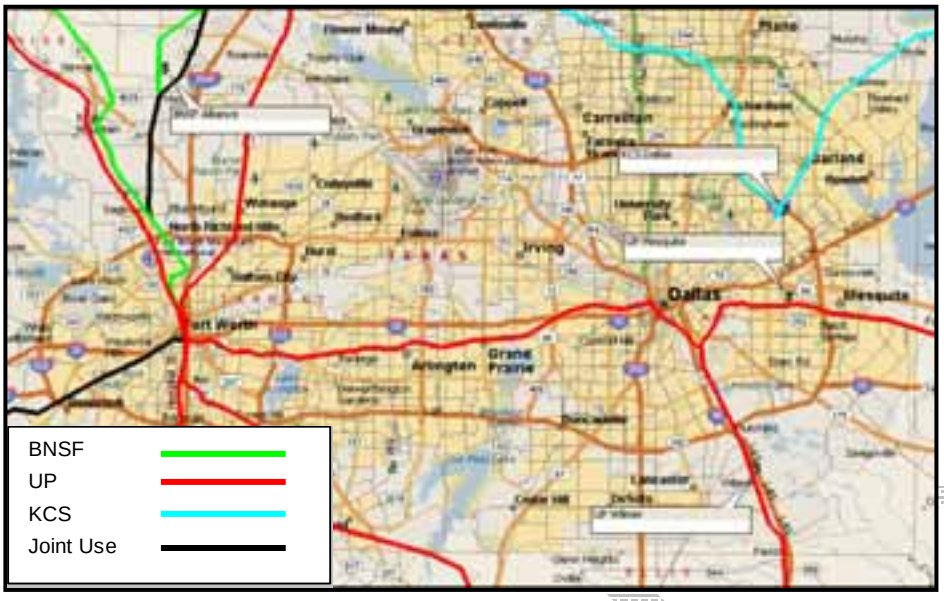
Exhibit 10: BNSF Alliance

In the late 1980's, during the planning process for the then new Dallas Area Rapid Transit System (DART), planning authorities determined that the Santa Fe's rail intermodal facility in Dallas was required for use as a support facility for the system. As a result the Santa Fe conducted a series of studies to determine the best location for a new intermodal terminal in the region with the result that a decision was made to construct the new facility at the Alliance Industrial Park. In the process, surplus property and rail lines were sold. The proceeds were combined with those from the sale of the Dallas facility to fund the new Alliance terminal.

This facility, which was designed and constructed by Hillwood, was funded by BNSF. BNSF purchased the land from Hillwood. The initial cost of construction was in excess of $100 million. For the railroad this industrial park provides customers while for the developer the rail terminal serves to increase the commercial value of the property.

Rail Intermodal Service

Exhibit 11: Mid-Texas Intermodal Terminals



Air Cargo Services

Fort Worth Alliance Airport is the first purely industrial airport in the Western Hemisphere. Planning for the 7500-acre Alliance Airport began in 1988 with the objective of serving business and industrial uses rather than commercial passenger traffic. The airport officially opened on December 14, 1989. The facility features the full complement of flight services for general and industrial aviation.

AFW offers direct taxiway access to nearby corporate residents in Alliance Center. World-class concierge services for pilots, crew and passengers are coordinated by Alliance Aviation Services, which manages the Fixed Base Operation (FBO). The airport accommodates air cargo, corporate aviation and military operations.

In 2005 Fort Worth Alliance Airport handled 220,134 metric tons of cargo, an increase of 28% over the 172,046 metric tons that passed through the facility in 2004. 242,210 metric tons were handled in 2000. AFW has the current capability of handling freight/cargo on any sized aircraft.

In addition to serving the general aviation and cargo needs of the tenants of the industrial development and nearby areas, the Alliance facility is home to FedEx's Southwest Regional Sorting Hub, American Airlines aircraft maintenance and engineering center, the Federal Aviation Administration's Flight Standards District Office and a number of other aviation companies.

The surrounding development area currently supports a total of 29 tenants occupying about 4.92 million square feet of space. Among the tenants are FedEx, which is constructing its 230,000-sq. ft. state-of-the-art Southwest regional sorting hub, and American Airlines, which recently established a $481 million aircraft maintenance and engineering center at Alliance.

The airport received $4.5 million in Airport Improvement Program funds from the FAA to extend both runways to 11,000 feet to accommodate larger jets. Fee simple ownership of large tracts of land with direct runway access is a unique airport feature. The U.S. Customs Service has on-site facilities, allowing international flights and cargo to be cleared at the airport.

Auto Loading Services

The 55-acre auto facility is a conventional rail transfer facility and serves DaimlerChrysler, American Honda, Hyundai and a number of other manufacturers and automotive re-marketers.

Competition

Union Pacific has two intermodal terminals in the Dallas-Fort Worth area that compete directly with Alliance. A primarily domestic terminal is located in Mesquite and a primarily international terminal is located in Wilmer. This brand new UP terminal advertises being adjacent to a planned 4,500-acre industrial park. Kansas City Southern (KCS) operates an intermodal terminal located in Dallas and is often considered a business partner of BNSF in this market, particularly for east/west movements.

Success Factors

This facility started the trend toward synergistic development of business parks and intermodal terminals. There was some concern initially about the distance of the new facility from the Dallas Metro area, primarily related to drayage costs. While this may be a negative factor, Alliance has been a very successful development. Hillwood was also highly interested in having an intermodal facility as an adjunct to the industrial park and actively markets the synergistic relationship between the intermodal terminal and the industrial park. For example, J. C. Penney developed a major distribution center that was planned to receive 18,000 inbound containers annually and distribute goods to approximately 1,000 stores located east of the Rockies. All the inbound and many of the outbound loads will move via the BNSF intermodal facility.

The airport was sited to serve the greater Dallas-Ft. Worth area and points beyond. As with other cargo airports its initial tenants were aircraft and airline industry firms, not cargo shippers or consignees.

The rail intermodal terminal was relocated from Dallas to Alliance and therefore had a pre-existing clientele. The Hillwood Group has been a very effective master developer and "champion" for the project.

4. The Port of Huntsville, AL

Overview

The Port of Huntsville is an inland port complex located in Northern Alabama (Exhibit 12) comprised of three operating facilities under the jurisdiction of Huntsville–Madison County Airport Authority: Huntsville International Airport, the International Intermodal Center, and Jetplex Industrial Park. The mission of the Port of Huntsville is to provide quality multi-modal transportation services to a diverse regional customer base and to stimulate the economic growth and development of the Tennessee Valley Region.

The driving force of the Airport Authority created the Port of Huntsville. The Airport Authority also financed and built the intermodal terminal and convinced NS to provide service. Facilities and infrastructure significantly exceed current demand and provide long-term capacity for growth.

Exhibit 12: Port of Huntsville Market Region

International Intermodal Center (IIC)

The IIC (Exhibit 13) is divided into two distinct operations: rail cargo, which began in 1986, and air cargo which began in 1987.

Exhibit 13: Huntsville International Intermodal Center

The rail intermodal terminal is co-located with the air cargo terminal on the east side of the airport. The terminal is served by Norfolk Southern (NS) whose main line between Memphis and Chattanooga passes about 4 miles north of the terminal. The terminal is owned by the Airport Authority and operated by Authority employees. NS pays a lift charge to cover the cost of the terminal operation. The facility handled 22,000 lifts in 1999 and has grown to 35,000 lifts in 2005. With a recent expansion, terminal lift capacity is estimated at 100,000 lifts.

The terminal is served by two NS trains per day, one eastbound and one west bound. NS main line trains pick up and set off Huntsville blocks which are switched to and from the facility by NS local switch crews. Authority personnel provide terminal switching with their own locomotives. About 90% of the volume at the terminal is international containers with 60% to 70% of that moving over west coast ports. West coast volume is interchanged to NS at Memphis by Union Pacific or Burlington Northern Santa Fe. The remaining international volume moves over the ports of Savannah and Charleston or the Florida Ports of Jacksonville and Miami. NS also provides domestic service, principally in domestic containers, to Rutherford, PA, (Harrisburg) and Erail, NJ, (Elizabeth). Service frequency is five days per week for both eastbound and westbound services. Considering the volume and the size of the local market, the service frequency and port coverage is quite good.

The air cargo facility includes a 200,000 square foot terminal building for domestic and international air cargo along with 1 million square feet of cargo ramp space. Air cargo was a primary goal of Huntsville planners throughout the facility's development process. In 2004, HSV was ranked 18th among U.S. airports for international air cargo tonnage.

The IIC provides Customs services for both international air cargo and rail containers, along with services offered by a number of freight forwarders, customs brokers and ground handlers. In addition, the designation of Foreign Trade Zone 83 gives manufacturers and processors the ability to take advantage of duty deferral, duty reduction and other FTZ cost savings.

Huntsville International Airport

HSV began operations in 1967 as Carl T. Jones field when the regional airport was relocated from downtown Huntsville. At that time, the airport was built with two parallel 8,000–foot runways with one mile separation enabling simultaneous operations during instrument conditions. After expansions in 1991 and 2005, the airport runways are now 10,000 and 12,600 feet giving HSV the capability to handle any size aircraft in service today, including the new Airbus 380. Current air operations utilize less than half of current airport capacity.

Jetplex Industrial Park

The Jetplex Industrial Park has 4000 acres of industrial sites located in and around the Huntsville Port complex, with over 2,800 acres available for immediate development. JIP has excellent access to air, rail and highway transportation infrastructure along with the related services described above. This creates a competitive advantage for locating industry in the park complex. In addition, Foreign Trade Zone designation provides an added benefit for industries that can take advantage of the FTZ cost savings.

Exhibit 14: Jetplex Planned Industrial Development

Air Cargo Service

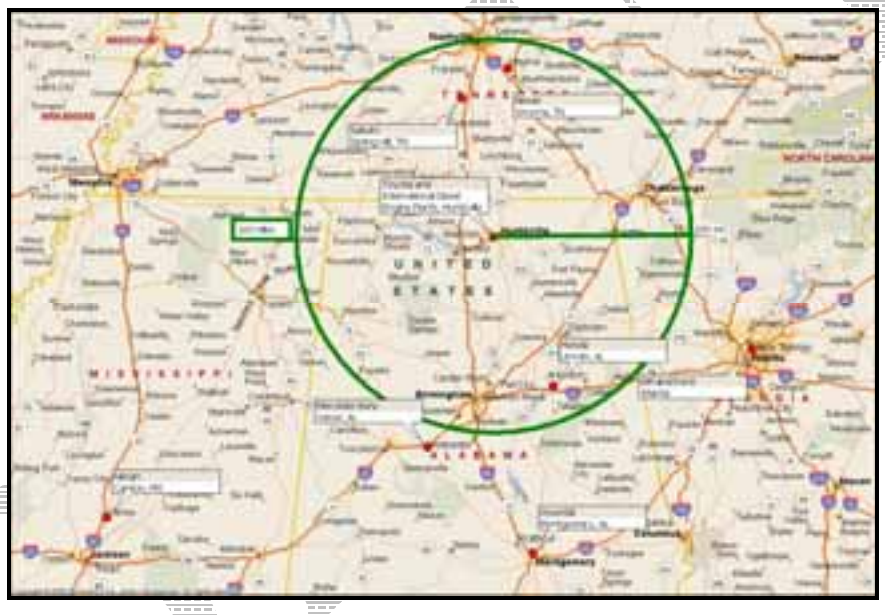
International air cargo began in 1991 with Swiss freight forwarder Panalpina. Currently, Panalpina operates 10 scheduled B-747's per week to European markets, three scheduled weekly flights to Mexico, plus charter aircraft as needed. In 1991 Panalpina was looking for a location for a U.S. Air Cargo Hub and selected Huntsville. After Panalpina agreed to establish its operation the Airport authority extended one of the runways to 10,000 feet to enable 747 air freighters to use the airport. Panalpina's top air freight commodity markets at Huntsville include automotive, energy (i.e oil field equipment), apparel, and technology. Panalpina's US market is focused on the Southeast but it has handled freight trucked in to Huntsville from as far away as Texas and Wisconsin. Because of low congestion and high ground service levels at Huntsville, Panalpina can deliver in Atlanta as fast or even faster than Atlanta-based air cargo carriers.

Panalpina operates daily service to Luxemburg for its European service. It also operates twice weekly service to Mexico. It had a weekly service to Hong Kong but this service was recently discontinued because high fuel costs made it difficult to secure enough high paying cargo. Panalpina's volumes are well balanced, which is a requirement for profitable operations. Termination of its Hong Kong service was partially due to an inability to secure backhaul cargo to Asia.

Auto Plants

A significant portion of the terminal's container business comes from import auto parts for a Toyota engine plant and new Hyundai and Mercedes auto assembly plants. Exhibit 15 shows the location of Southeast automotive plants in relation to Huntsville. The region has developed a significant base of auto assembly and parts facilities. The Huntsville rail intermodal terminal has been a beneficiary of the automotive business with record volume in 2004 and 2005.

Exhibit 15: Regional Auto Plants



Governance

The Huntsville Madison County Airport Authority is organized as an Alabama public corporation. It is governed by a five-member board made up of local citizens and business people. Two members of the board are appointed by the Huntsville City Council. Two members are appointed by the Madison County Commission, and one member is appointed jointly by the City and the County. The Port Authority is funded through its operating revenues. In 2005 it had about $24 million in operating revenue and over $11 million in cash flow. The principle sources of operating revenue were passenger operations of about $17 million, air cargo $3.6 million, rail operations $2.2 million, and the industrial park $1.2 million. The Airport Authority appears to be in excellent financial condition with over $30 million in cash at the end of 2005, $5 million more than 2004. The Airport Authority has bonding power and currently has about $50 million of outstanding revenue bonds. About 60% of its capital came from its own capital, with

the remaining coming from FAA grants, Appalachian Regional Commission grants and Federal earmarks.

Success Factors

Although the Huntsville–Decatur regional population is only 500,000, the Port of Huntsville has facilities and infrastructure that significantly exceed current demand and provide long-term capacity for growth. This can be attributed to the vision and long-range planning of the Huntsville-Madison County Airport Authority which was formed in the early 1960's to relocate the region's airport. It took 20 years, from 1967 to 1987, for the Port of Huntsville to "get off the ground".

Vision

A key example of the Airport Authority's vision and planning was its early focus on development of freight facilities required to support future transport needs and industrial development, namely air cargo and rail intermodal for both domestic and international markets. Examples include:

- Creation of the IIC hub with both air cargo handling and rail intermodal facilities.
- The runway extension to 10,000 feet in 1991. This attracted Panalpina to the Port with its direct freight service to Europe.
- The runway extension to 12,500 feet in 2005. This enables fully loaded 747-400 non stop airfreight service to Asia and future operations of Airbus 380 air cargo planes.

Another example of this vision is in land acquisition. A key factor in the development of the Port of Huntsville was the availability of land. At the time the airport was relocated in 1967, the Airport Authority acquired 3000 acres of cotton fields with a plan to create an industrial park as an integral part of the airport development. Today, the Airport Authority owns 6000 acres of land for Port facilities and industrial development. In addition, the Port master plan provides for acquisition of an additional 4000 acres.

Willing rail service

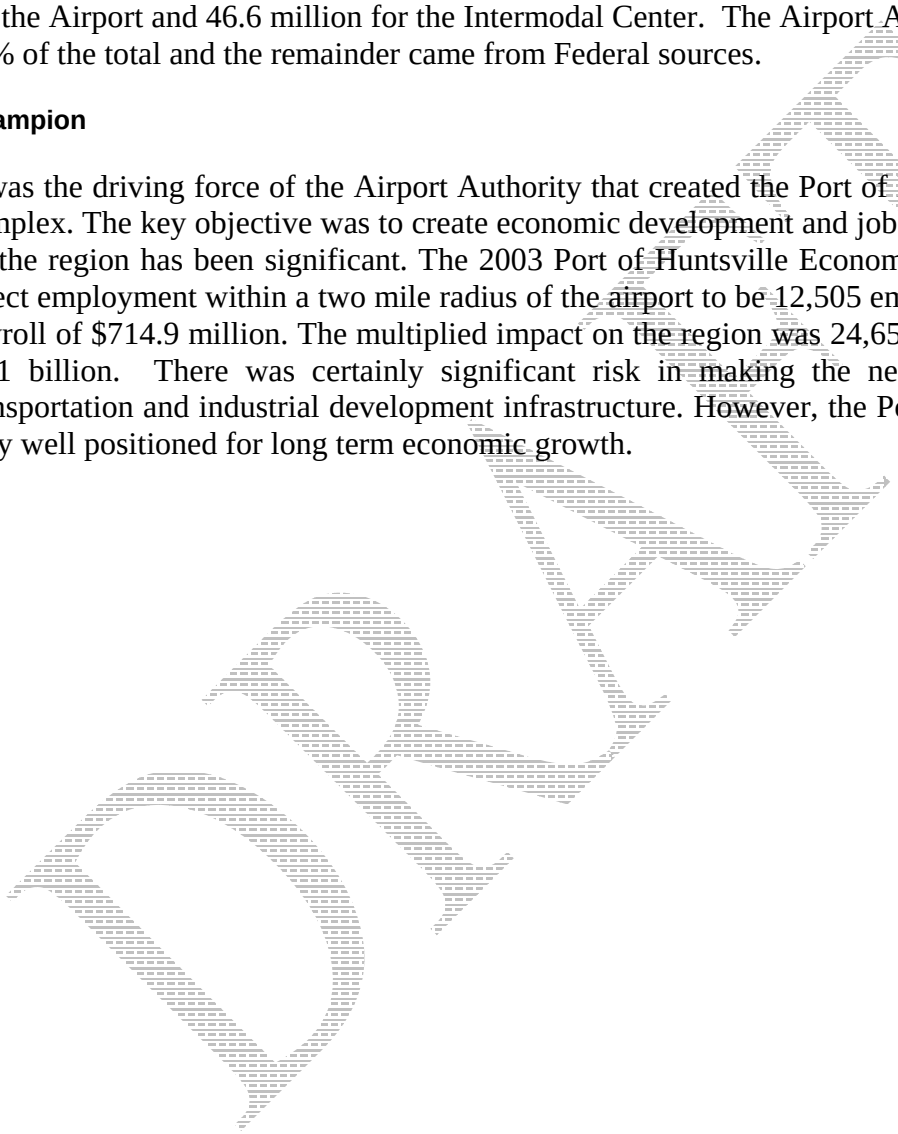
Another key success factor was securing NS intermodal service. NS had no interest in investing its own capital for an intermodal terminal or in establishing intermodal service for the Huntsville Decatur market. Obviously, without NS service the inland rail port could not have been established. The Airport Authority financed and built the intermodal terminal and convinced NS to provide service from and to key markets. After some negotiation, NS agreed to serve the Huntsville terminal and pay the Airport Authority a lift charge for terminal services. At the same time, NS closed its Birmingham and Chattanooga terminals enabling the Huntsville terminal to serve as a regional terminal for Northern Alabama and Middle Tennessee. The Airport Authority development plan prepared in the 1970's included a rail intermodal terminal as part of the multi modal transportation complex. The intermodal terminal was built in 1986, well before the growth of intermodal and international container movement that is currently being experienced.

Financing

Financing of these capital investments in land and facilities was the critical element of the Port's development. Funding was accomplished by the Airport Authority through a combination of Federal Grants and Airport Authority Revenue Bonds. The Federal grants came from FAA airport construction and improvement grants, Appalachian Regional Commission Area Economic and Human Resource Program grants, and Federal earmarks. The total historical value of investments for the Port of Huntsville at the end of 2002 was $207.4 million, $160.8 million for the Airport and 46.6 million for the Intermodal Center. The Airport Authority financed about 60% of the total and the remainder came from Federal sources.

Champion

It was the driving force of the Airport Authority that created the Port of Huntsville's inland port complex. The key objective was to create economic development and jobs. The economic impact on the region has been significant. The 2003 Port of Huntsville Economic Impact Study shows direct employment within a two mile radius of the airport to be 12,505 employees with an annual payroll of $714.9 million. The multiplied impact on the region was 24,654 jobs with a payroll of $1.1 billion. There was certainly significant risk in making the necessary investments in transportation and industrial development infrastructure. However, the Port of Huntsville is now very well positioned for long term economic growth.



5. Rickenbacker Airport Columbus Inland Ports

Overview

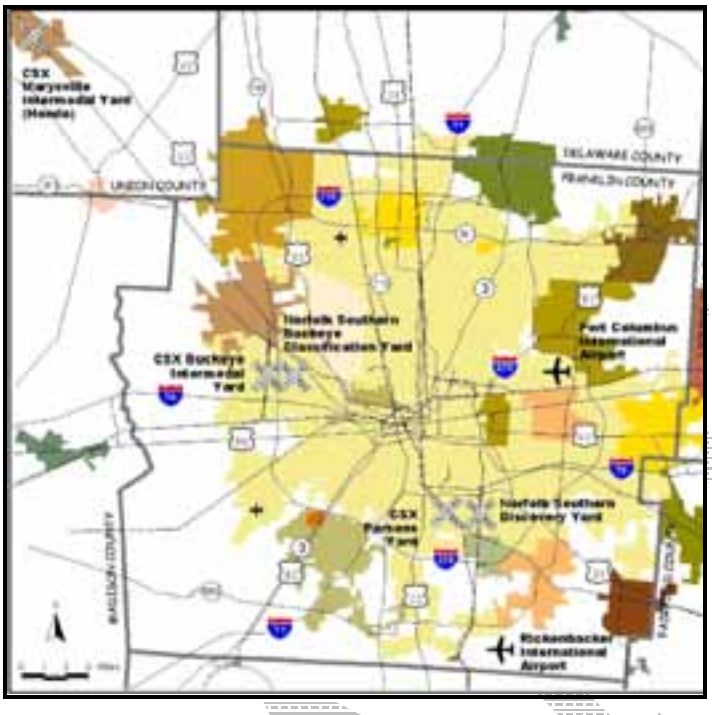
Columbus is a city of 1.6 million people located in central Ohio, 300 miles east of Chicago (Exhibit 16) and 500 miles west of New York City. The Limited, Honda of America, and Kroger are very large local, logistics-intensive employers. The city is located at the intersection of I-70 and I-71, is served by CSX and Norfolk Southern (NS) railroads, and has two major airports. Local transportation planning is centered in the Mid-Ohio Planning Commission (MORPC). MORPC/Greater Columbus Chamber of Commerce started a freight planning partnership in mid-1990s.

Exhibit 16: Columbus Location

Columbus Inland Ports

MORPC defines several "inland ports" in the Columbus metropolitan area (Exhibit 17).

Exhibit 17: Columbus "Inland Ports"



- Port Columbus International Airport primarily serves passengers, but also handles freight shipments such as small package cargo and mail. The airport is surrounded by warehouses and distribution centers including a soft drink warehousing/distribution center. This location has access to I-670 and I-270.
- Rickenbacker International Airport is a multi-modal cargo airport, a charter passenger terminal, and a U.S. Foreign-Trade Zone. This airport was built over 50 years ago by the Army Air Corps. For the past 10 years, this airport has been transformed from a military base to an airport whose primary function is to serve cargo planes. Industrial development has occurred in areas surrounding the airport. This district is home to various distributing centers such as Gap Inc.
- NS Discovery Park Intermodal Terminal is located just north of the Rickenbacker Airport with good access to I-270, I-70 and I-71. The 40-acre yard was opened in 1990 and underwent major expansion in 1994 and a second expansion in 1999. Currently service goes to Chicago, Dockside, NJ, and Norfolk, with 12 outgoing trains per week. In 2003, the intermodal facility handled approximately 140,000 lifts. The NS terminal is operating over its design capacity of 125,000 lift and a new larger facility is being developed near Rickenbacker Airport.
- CSX Buckeye Yard Intermodal Terminal and NS Buckeye Classification Yard are located northwest of the I-270 and I-70 intersection on the western side of Franklin County. The Buckeye facility was developed by Conrail and was divided between CSX and NS in 1999 as part of the Conrail acquisition. CSX received the intermodal yard and NS received the classification yard. The Buckeye intermodal yard was constructed in 1985 using both state and Conrail

funds. Currently CSX provides service from Columbus to destinations in Texas, Georgia, Massachusetts, South Carolina, Illinois, California, New Jersey, Florida, Virginia, Oregon and Washington. CSX has double-stack clearance on all routes to Columbus and services approximately 18 outbound trains/week and 25 inbound trains/week. The number of rail lifts at Buckeye Yard has increased steadily; in 2004, the intermodal facility handled approximately 150,000 lifts. Although both yards have reached capacity, the yards are landlocked and cannot be expanded.

- CSX Parsons Classification Yard is located near NS Discovery Park and is CSX's freight classification facility in the region. It is also the planned location of a new larger intermodal facility to supplement or replace CSX's Buckeye facility.
- Honda Intermodal Terminal. The Honda–Marysville terminal was constructed in 1989 as a joint venture between Conrail and Honda and is located at the Honda Marysville plant in Union County. Under the Conrail split, CSX bought the rights to operate this yard. The initial yard annual traffic volume projections were around 14,000-15,000 inbound loads, consisting principally of auto parts imported from Japan either directly to the plant or to local suppliers who did certain additional work before delivery to the plant. Volume has declined somewhat as Honda has chosen to source more parts locally.

Rickenbacker International Airport

Only Rickenbacker International Airport is an "inland port" with Customs facilities, and FTZ, etc. The others are conventional rail facilities and the existing passenger airport.

Rickenbacker is a 5,000 acre all-cargo airport. It was the first public use all-cargo airport in the United States and is currently the largest public all-cargo airfield in the world. Rickenbacker is a former Air Force base that was designed with 12,000-foot runways. The base was realigned in 1980, with the control transferred to the Ohio National Guard. The Franklin County Board of Commissioners formed the Rickenbacker Port Authority to operate and develop a civilian airport at Rickenbacker with a joint use agreement with the National Guard. Over 5,000 acres of land were transferred from the Air Force to the Port Authority between 1984 and 1994. The Port Authority now operates the facility and the military is one of many tenants.

Rickenbacker did not become an economic success until after 1990, when a new management company was hired, and a new marketing strategy developed, based on Greater Columbus Inland Port Concept. Local business and political leaders believed that a container could arrive at port in New York, be unloaded, shipped by rail to Columbus, clear Customs, be broken down into small units and driven to East Coast locations faster than if processed entirely in New York.

The airport anchors the southern end of a 15,000-acre industrial zone. It contains over 22 million square feet of class "A" distribution and logistics space that employs over 15,000 workers. The Rickenbacker Port Authority has developed ten million square feet over the last ten years in the Foreign Trade Zone industrial park. An additional 12 million square feet have been developed in 12 other industrial parks in the Rickenbacker Area over the last five years. Ample room still exists for additional growth; only 40% of the area's land suitable for industrial projects has been developed thus far.

More than 60 companies now do business at Rickenbacker, including several Fortune 500 firms. These companies employ about 5,000 civilian employees at Rickenbacker. Eagle Global Logistics and Forward Air have established national truck hubs at Rickenbacker, and regional gateways are operated by Federal Express and United Parcel Service. A number of logistics companies have also located at Rickenbacker, including Exel. Exel's 23,000 square-foot all-inclusive facility at Rickenbacker consolidates all of Exel's airfreight forwarding, Customs brokerage, truck brokerage, intermodal operations, logistics and warehousing. Logistics and e-commerce fulfillment firms are supported at Rickenbacker by telecommunications services including state-of-the-art fiber optic lines, high-speed data circuits, and video-teleconference capabilities.

In the 1990's, air cargo volumes handled at Rickenbacker increased by an average of 15% a year, double the national average. About 45% of the cargo handled by Rickenbacker is international. While the total number of flights at the airport declined in 2001 compared to the previous year, a greater number of larger cargo aircraft used the airport. This increase was due in large part to FedEx's new contract with the U.S. Postal Service.

Cargo operations at Rickenbacker are enhanced by the development of Rickenbacker's 500,000 square-foot Air Cargo Terminal Complex, which is being continually expanded. It provides direct airfield access to freight forwarders, shippers, logistics companies, and others looking to capitalize on a Foreign Trade Zone location. The Air Cargo Terminal Complex is being developed by the Franklin County Improvement Corporation, which was created in 1994 by the Rickenbacker Port Authority and the Franklin County Commissioners to develop specialized facilities backed by joint ventures and private financing. More than three million square feet of additional air cargo facilities are planned for development during the next five to ten years.

The success of Rickenbacker International was the catalyst for the 1991 creation of the Greater Columbus Inland Port Commission, which promotes trade and the development of intermodal infrastructure for freight shipping and distribution in the Columbus area. It is made up of city, county, state and federal representatives on the public side, and the Greater Columbus Chamber of Commerce, as well as individual manufacturers, shippers, carriers and other private service providers.

Funding

In the period 1981–1991, Rickenbacker drew a total of $72.8 million in public capital investment and $1.7 million in private capital investment. Public investment sources included 49% from the Rickenbacker Port Authority (mostly revenue bonds), 23% from Franklin County, !7% from the State of Ohio, and 11% from the FAA and Department of Defense. In the period 1992 – 2000, the facility drew a total of $111.7 million in public capital investment and $403.0 million in private capital investment. Public investment sources included 52% from the FAA and DOT, 21% from the State of Ohio, 12% from the Rickenbacker Port Authority, 11% from Franklin County, and 4% from other local sources.

The Rickenbacker Port Authority received a $5 million grant from the FAA's Military Airports Program for the construction of a small charter passenger terminal. A new parallel runway that is at least 5,000 feet distant from the existing primary runway is planned for construction within the next fifteen years. This will allow for simultaneous instrument flight rules (IFR) landings

that are not possible with the existing runway configuration because the parallel runways are too close together.

As a cargo airport, Rickenbacker receives a variable entitlement of about $500,000 annually from the FAA, based upon cargo tonnage handled. The airport is not entitled to any federal airport funding based on passenger activity at airports. Consequently, in 2003 the Port Authority is expanded its business services to include charter passengers in order to become eligible for federal grants needed to provide for minimal maintenance of the airfield.

Benefits

To date, every dollar of public investment in Rickenbacker has produced over $3 in direct private investment, and $25 in regional economic impact. A recent economic study estimates that Rickenbacker Airport currently generates over $811 million in economic impact to the Greater Columbus Region, and supports over 7,600 jobs. Businesses located in the Foreign Trade Zone generate an additional $951 million to the regional economy and support almost 10,500 jobs. An additional $988 million is generated by Rickenbacker Area development outside the boundaries of the Rickenbacker Port Authority. The total impact of Rickenbackder and Rickenbacker Area development to the regional economy is currently about $2.8 billion. This is forecast to increase to $3.8 billion in 2006 with the development of the International Facilities Complex, which will include a passenger terminal, hotel and conference center, and corporate hangars.

Public-Private Collaboration

The following is taken from a 2004 MORPC report *"Freight Planning in Central Ohio A Companion Report to the 2030 Transportation Plan". In the mid-1990's MORPC and the Greater Columbus Chamber of Commerce started a freight planning partnership (GCIP – Greater Columbus Inland Port) to play a strong leadership role in advancing Columbus' freight transportation and distribution industries. The work that resulted from this effort won national recognition and became known as the Inland Port Reports, as described below.*

- *Inland Port Phase I (1994): MORPC concluded its first study exploring the institutional, organizational, and regulatory impediments to freight movement in the region.*
- *Inland Port Phase II (1997): This study stressed closer and more effective communication between the private and public sectors, and more extensive exchange of information and opportunity for input in the decision-making process on transportation infrastructure improvement projects.*
- *Inland Port Phase III (1998): The Freight Transportation Economic Impact Study for Central Ohio was completed. This study documented that public investment in freight transportation projects is an effective method to achieve economic growth in the region.*

The result of this state and MPO activity coupled with an aggressive Chamber of Commerce has helped the region maintain long-term job growth in the face of a significant reduction in manufacturing jobs.

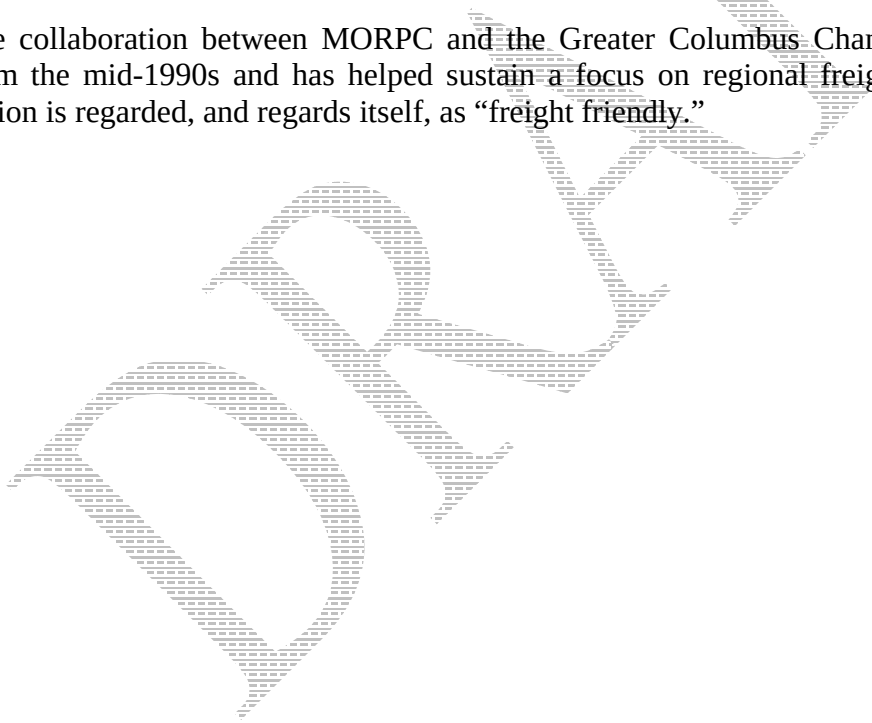
Success Factors

Columbus is a successful model for any city that is seeking job creation in the transportation and logistics sectors of industry. The simple key to this process has been leadership exercised in both the public and private sector around shared economic development goals.

The biggest advantage is Rickenbacker's location as a distribution center for both domestic and international air cargo. Columbus is within a one-day truck drive or a 90-minute flight of more than half of the population, employment, retail purchasing power and manufacturing capacity of both the U.S. and Canada. Rickenbacker has convenient access to the nine state and federal freeways and highways that intersect in central Ohio and link Columbus to major markets in New York, Chicago, and Atlanta. Lastly, Rickenbacker is located within a rapidly growing metropolitan area of 1.4 million people with a workforce exceeding 700,000 workers.

Creation of a foreign trade zone at Rickenbacker in 1987 also contributed to its success. Rickenbacker enjoys an exemption from state inventory taxes, and an abatement on real estate taxes for improvements to land and buildings through 2007. The airport receives a subsidy of about $3 million per year from local government, and the State of Ohio has pledged a total of $65 million in revenue bonds for future facility improvements.

The collaboration between MORPC and the Greater Columbus Chamber of Commerce dates from the mid-1990s and has helped sustain a focus on regional freight planning issues. The region is regarded, and regards itself, as "freight friendly."



6. Logport, Duisburg, Germany

Overview

Duisburg is a German city in the western part of the Ruhr region in North Rhine-Westphalia. It is an independent metropolitan borough in the Düsseldorf area. With its harbor and proximity to Duesseldorf International Airport, Duisburg has become an important venue for commerce and steel production.

Logport is an offshoot of Duisport, itself an "inland port" by virtue of being on a river rather than on the coast. Logport is not a satellite terminal in the sense of being connected by a rail shuttle, but has its own berths and water access. Logport is of interest because of its emphasis on modern logistics and multimodal (water-rail-truck) transportation.

Duisburg Port

"Duisport" (Exhibit 18) is the largest inland river port in Europe. It is officially regarded as a "seaport" because sea-going river vessels go to ports in Europe, Africa, and the Middle East. Numerous docks are mostly located at the mouth of the River Ruhr.

Exhibit 18: Duisport

Each year more than 40 million metric tons of various goods are handled, with more than 20,000 ships calling at the port. The public harbor facilities stretch across an area of 7.4 km². There are 21 docks covering an area of 1.8 km² and 40 km of wharf. A number of companies run their own private docks, and 70 million metric tons of goods yearly are handled in Duisburg on

average. Duisburg Harbor is approximately 155 miles from the North Sea and is considered the hub of a 169-mile long system of inland waterways.

Logport

Logport is a logistics center at the former Duisburg-Rheinhausen ironworks site. The Logport project was started in 1998. Logport is situated on approximately 665 acres with access to its own river container terminal, road, rail, and nearby airports. The site is classed as "industrial space" and offers little or no land-use restrictions under German zoning laws. Exhibit 19 shows the "brownfield" ironworks site and a current aerial view of Logport.

Exhibit 19: Logput Before (Left) and After

Logport is located in the heart of central Europe at the intersection of north-south and east-west traffic. Approximately 30 million consumers live within a 94-mile radius of Logport. Three east-west and two north-south roads provide an 8-hour travel time to reach 40% of the entire European Union population, approximately 150 million consumers.

Logport's container terminal began operation in February 2001. To provide rail service to the site, the Duisport Group is entering into a joint venture with an existing rail operator to link the Port of Duisburg, Duisburg-Hochfeld (coal terminal), and Logport with a shuttle service. A fourth modal connection by air is available at the Duesseldorf International Airport located 10 miles from Logport.

Direct connection to Europe's most important waterway, the River Rhine, is available to Logport. This connection is enhanced by the direct link to Duisport, Europe's largest inland port.

The three target industries for Logport are logistics and the transportation sector, logistics-based manufacturing, and logistics-oriented services.

Multimodal Connections

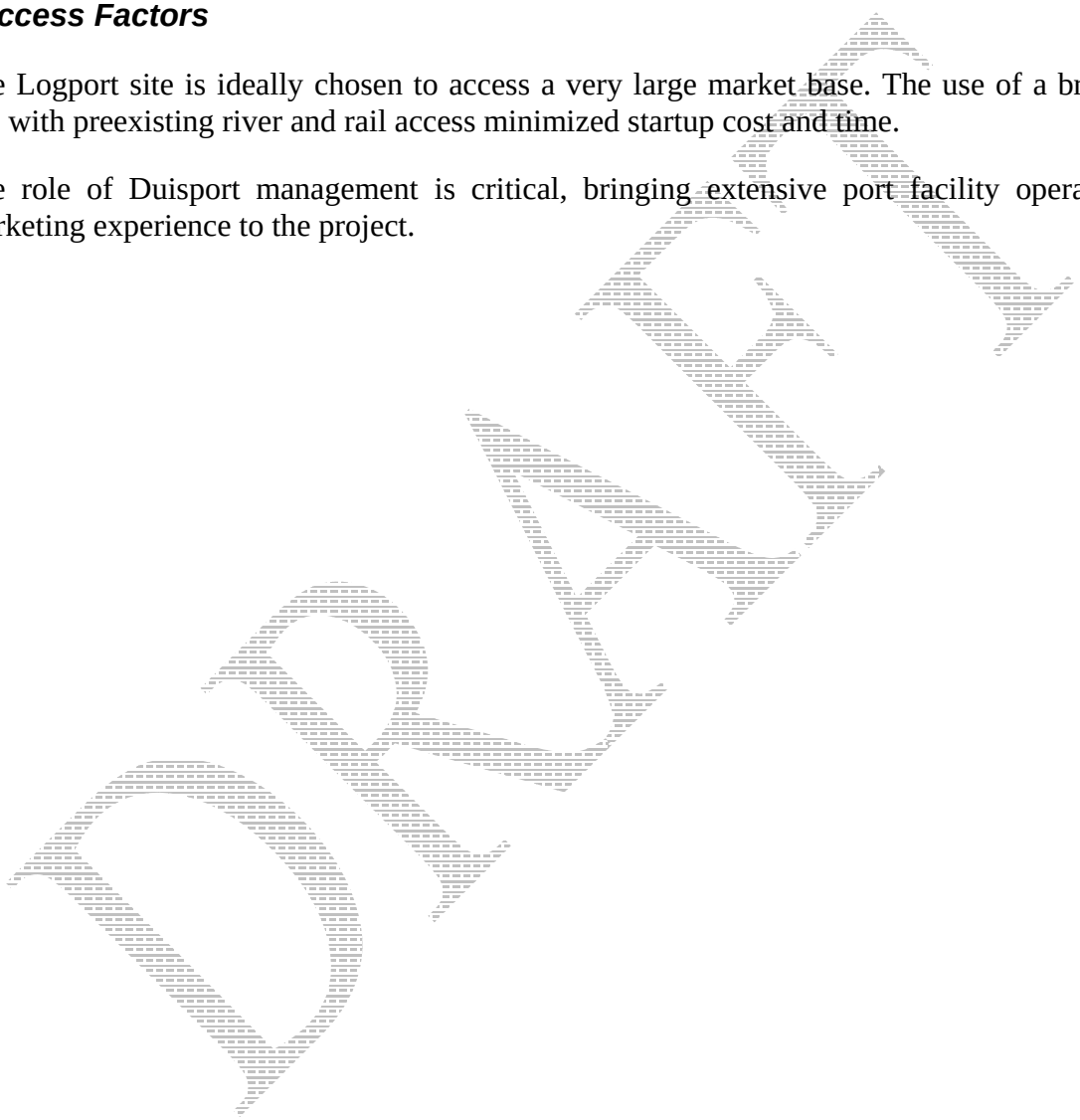
Duisburg and Logport are connected to the German Autobahn system. Five such roads extend through the city area or pass it.

Duisburg is served by the InterCityExpress and InterCity long-distance network of the Deutsche Bahn, the German national railway.

Success Factors

The Logport site is ideally chosen to access a very large market base. The use of a brownfield site with preexisting river and rail access minimized startup cost and time.

The role of Duisport management is critical, bringing extensive port facility operating and marketing experience to the project.



7. Joliet Arsenal Development Authority (JADA)

Overview

The Joliet Arsenal was developed by the U.S. Army in the early 1940's as a munitions plant. It was located on a 26,500 acre site near Joliet, IL, about 40 miles southwest of Chicago (Exhibit 20). In 1976 the Arsenal was decommissioned and in 1993 the U.S. Army declared the Joliet Arsenal site as excess property.

Exhibit 20: Joliet Arsenal Location

In 1995 the site was subdivided for both public and private use and the Joliet Arsenal Development Authority (JADA) was established to facilitate and promote the redevelopment of 3000 acres of Arsenal property. JADA worked with all levels of government, more than a dozen public agencies and private industry to create a development plan.

The cornerstone of this redevelopment was a complex of over 2000 acres being developed by CenterPoint Properties, one of the largest industrial real estate developers in the Chicago region. In 2000, the U.S. Army transferred ownership of nearly 1900 acres to CenterPoint. This property was combined with 375 acres of property previously acquired by CenterPoint to enable development of the CenterPoint Intermodal Center (CIC). The plan for CIC included a Burlington Northern Santa Fe (BNSF) transportation complex named Logistics Park Chicago (LPC) along with an adjacent industrial park (Exhibit 21). CIC's industrial park is currently located on 1,100 acres and when fully developed will encompass up to 12 million square feet of rail-served industrial buildings suitable for warehousing, distribution, and light manufacturing.

Exhibit 21: Logistics Park Chicago

LPC is a major multi-modal rail transportation facility operated by BNSF on over 700 acres. It includes a major intermodal container terminal, an automobile loading/unloading facility, and a carload transload facility. When completed in October 2002, the intermodal terminal was initially designed to handle 400,000 lifts, with room for expansion. In 2006, the terminal is projected to handle over 700,000 lifts. Terminal expansion in progress will increase capacity to over 1 million annual lifts.

In 2004, JADA received the final transfer of the 1,100-acre Island City Industrial Park from the U.S. Army. In 2005, JADA reached agreement with ProLogis, a major industrial real estate development firm, to develop a 770-acre warehouse and distribution park on this site. ProLogis, headquartered in Denver, is a leading provider of distribution facilities and services with facilities in 77 global markets.

Services

The BNSF intermodal terminal is the key driver of transportation services for international containers at the Joliet Arsenal redevelopment sites. The LPC intermodal terminal train service is limited to international containers originating and terminating at west coast ports. Daily train service is provided to the ports of Los Angeles and Long Beach and to Seattle and Tacoma. Service to the Port of Oakland is 4 days per week. These service levels, as well as adequate terminal capacity for container parking and container yard storage for ocean carriers, has attracted major ocean carriers such as Maersk SeaLand and Evergreen to BNSF for transporting their ocean containers from and to the Chicago and Midwest markets.

Another service is in-bond movement of ocean containers via BNSF with U.S. Customs clearance of import containers available at LPC. In addition to ocean carrier container storage, the services of California Cartage Company (Cal Cartage) are available at LPC. Cal Cartage provides drayage service, consolidation and deconsolidation, warehousing and other services for shippers and receivers of international containers. The Cal Cartage facility (Exhibit 22) is located adjacent to the LPC intermodal terminal.

Exhibit 22: Cal Cartage LPC Warehouse

CIC is also a designated Foreign Trade Zone. This gives manufacturers and processors the ability to take advantage of FTZ duty deferral, duty reduction and weekly customs entry providing cost reduction opportunity. With the BNSF service for import and export container shipments along with access to CIC development sites, the Joliet Arsenal provides an attractive location for companies involved in international trade and distribution of imports which move via west coast ports.

Governance

JADA is governed by a nine-member board. Four members are appointed by the Governor with consent of the Senate and five members are appointed by the Will County Board. All members are from Will County. JADA has the authority to borrow money and to issue revenue bonds with a maximum indebtedness of $100 million. Day to day operations are managed by an executive director who is responsible to the board. Initial funding of JADA operations came from a State grant which provided the seed money to get it started. Subsequent funding of operations and capital improvements came from land sales. Grant funding was also secured for specific projects. As a result of these sources of funding JADA has never used its bonding authority.

Success Factors

The primary objective of the redevelopment of the Joliet Arsenal by JADA was to create economic benefits and job opportunities from the reuse of the Arsenal property. However, it appears that the driving force for the logistics-based development was the developer, CenterPoint Properties. CenterPoint led the effort to assemble the land, deal with the environmental issues, secure needed financing, and work with BNSF to site and develop its transportation facilities at the Arsenal. John Gates, CenterPoint's President and CEO, gives an indication of the difficulty of the project, "*Laying the foundations for one of the world's premier multi-modal distribution complexes has been a truly extraordinary effort over many years.… A truly remarkable team of public officials and private professionals has overcome literally thousands of obstacles to make the redevelopment of the Joliet Arsenal a reality.*"

CenterPoint's 1100 acre development plan for CIC is reported to be five years ahead of schedule and the ProLogis planned development of a 770 acre warehouse and distribution park is being developed on the south side of the Arsenal redevelopment complex.

The CenterPoint development has attracted several major industries including two huge Wal-Mart warehouse and distribution facilities. Exhibit 23 is a listing of the CIC customers:

Exhibit 23: CIC Customers

CenterPoint Intermodal Center Customer List

1)	BNSF Logistics Park Chicago	715 acres
2)	Maersk Sea Land	17 acres
3)	California Cartage, Inc.	213,500 square feet
4)	Georgia Pacific	1,001,200 square feet
5)	DSC Logistics	1,022,000 square feet
6)	Potlatch, Inc.	624,000 square feet
7)	Sanyo Logistics	400,000 square feet
	Partners Warehouse	200,000 square feet
8)	Wal-Mart	1,600,000 square feet
9)	Wal-Mart	1,800,000 square feet

Location

Chicago is the U.S transportation and distribution hub. This is a great location for both industrial development in general and logistics-related development in particular. Growth of U.S imports over west coast ports has created the demand for rail transportation to Midwest markets which utilize Chicago as a distribution hub. BNSF was reaching capacity limits at its Chicago terminals. These two factors created the "perfect storm" that drove the success of combined development of the BNSF logistics park, LPC, and CenterPoint's business park, CIC.

Market and Funding

This project had the necessary prerequisites that lead to success: adequate financing, a solid and well understood market opportunity, and a willing Class I railroad. In spite of this, it took nearly a decade of work from decommissioning to establishment of the inland port which opened in late 2002.

Willing Railroad

When BNSF developed Logistics Park Chicago (LPC) at the Joliet Arsenal, it changed its operations to concentrate most of its international container business at LPC. Most of the California ocean carrier business was taken out of BNSF's Corwith and Cicero terminals. The BNSF's Pacific Northwest container business is still handled at the Cicero terminal because the former BN lines from the Pacific Northwest come in to Cicero.

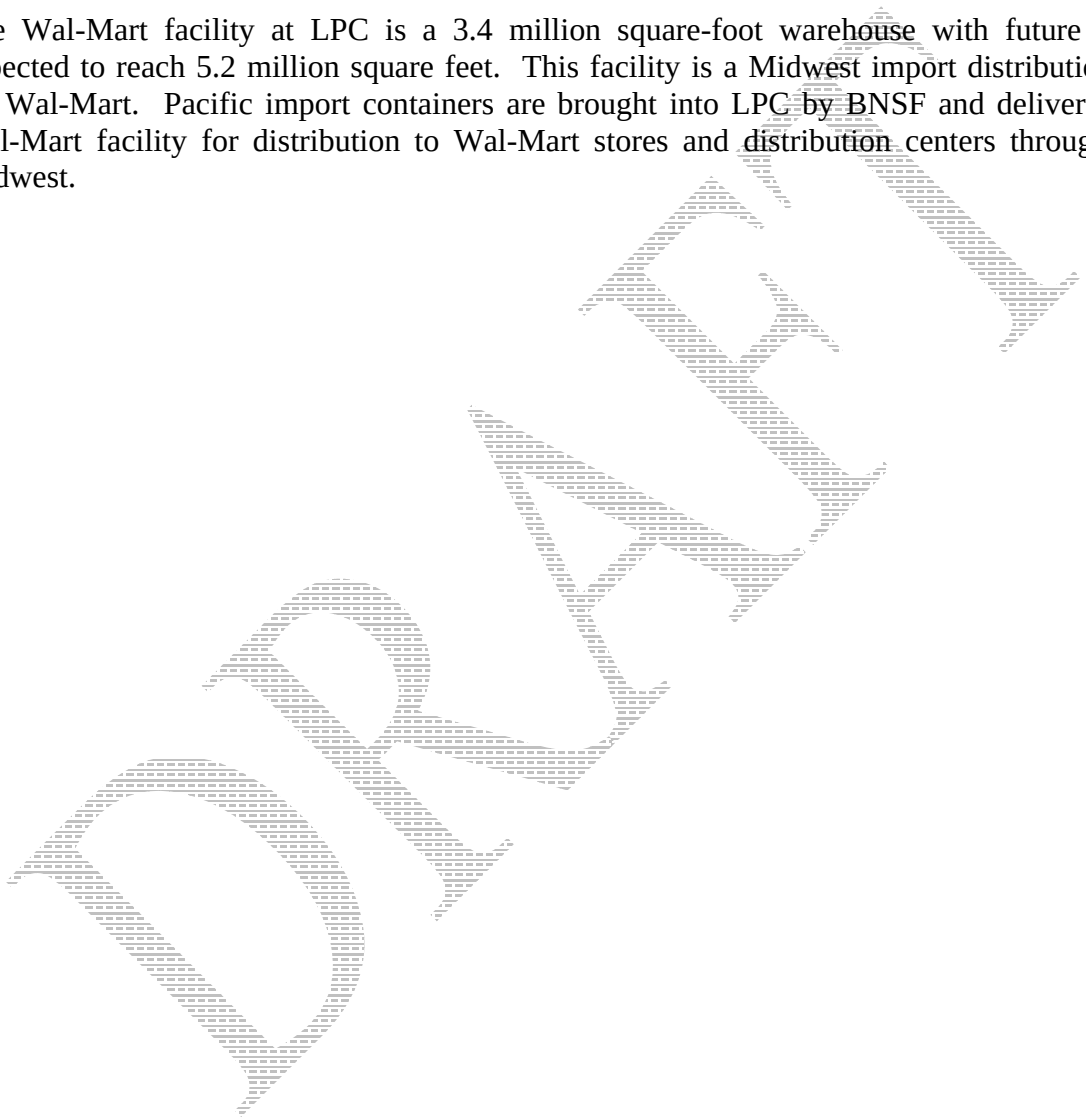
Because BNSF shifted large volumes of existing ocean carrier container traffic from overburdened Chicago terminals to Joliet the new facility had a ready-made traffic base. After four years of operations LPC is expected to handle about 700,000 annual lifts in 2006, making it one of the busiest terminals on the BNSF system.

Champion

Every major project of this scope and complexity needs a particular "champion" to carry it forward and CenterPoint filled that role for this project.

The CenterPoint Intermodal Center adjacent to LPC has been very successful in attracting industry and is reaching capacity with the recent development of a large Wal-Mart warehouse and distribution facility.

The Wal-Mart facility at LPC is a 3.4 million square-foot warehouse with future capacity expected to reach 5.2 million square feet. This facility is a Midwest import distribution center for Wal-Mart. Pacific import containers are brought into LPC by BNSF and delivered to the Wal-Mart facility for distribution to Wal-Mart stores and distribution centers throughout the Midwest.



8. Global III Intermodal Terminal, Rochelle, IL

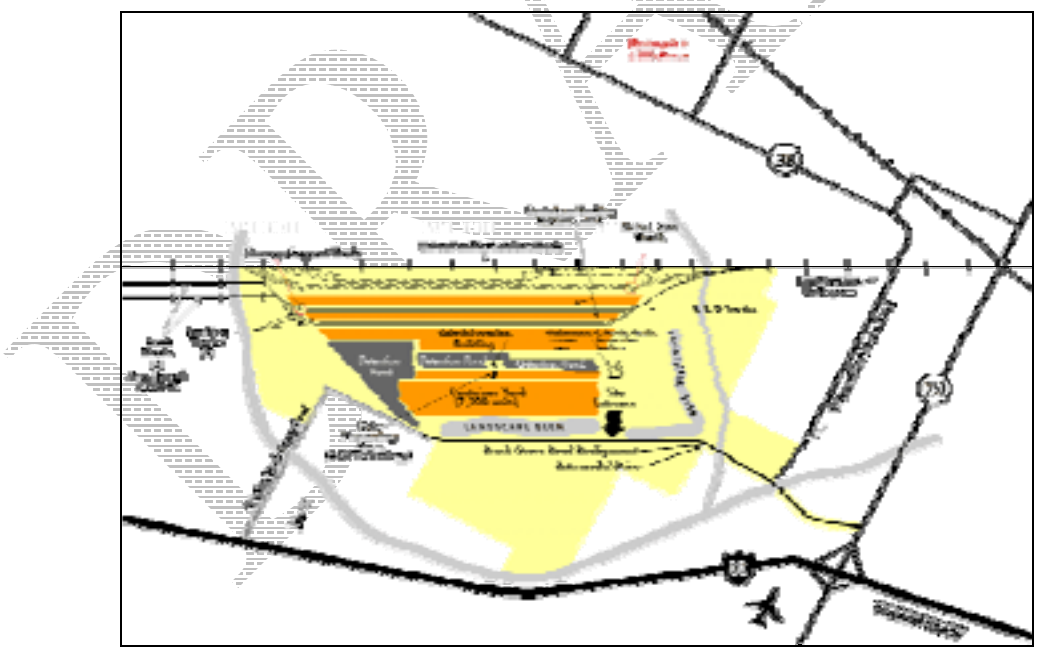
Overview

The Union Pacific Global III Intermodal Facility, located in Rochelle, IL, was built to meet the growing need for intermodal terminal capacity in the Chicago market. Unlike other intermodal terminal development projects, the driving force for this facility was the railroad and its need for capacity. It was not driven by an industrial development company or public economic development authority seeking an industrial development opportunity.

The development encompasses two facilities that cover 843 acres of 1,200 acres owned by Union Pacific (UP) (Exhibit 24).

- The first is a 13-track carload classification yard for assembling line haul trains. The yard also includes support tracks for locomotive servicing. This facility was opened in December 2002.
- The second is an intermodal terminal with four 7,000-foot loading tracks, a 10-lane automated gate system, and a 7,200-unit container storage yard. The terminal, which was opened in August 2003, has capacity to perform 720,000 lifts annually.

Exhibit 24: Rochelle Rail Development Site



The intermodal terminal and the switching yard work in tandem to load railcars and build railcar blocks of intermodal containers for movement beyond Chicago. These blocks are shuttled to intermodal facilities of eastern railroads in the Chicago area for interline movement. Blocks are also made for the UP's intermodal terminal at Yard Center on the south side of Chicago for transport to Texas, Mexico, and other Southwest UP markets. Westbound intermodal service

from Rochelle is provided to major west coast ports and intermediate points. Exhibit 25 shows the other UP intermodal terminals in the Chicago area.

Exhibit 25: UP Intermodal Terminals in Greater Chicago

Global III is 80 miles west of Chicago. Rochelle, IL was not the UP's first choice for the facility location. UP selected Rochelle after a 5-year search for a municipality that was willing to accept the development of an intermodal terminal. The first two sites selected were in West Chicago, IL, and Elburn, IL, approximately 38 and 54 miles west of Chicago, respectively. Public and political opposition to these two sites forced the railroad further west to the site at Rochelle.

Parties and Roles

The local political and economic development officials from Rochelle promoted this site location to the UP when it became apparent that the two sites closer to Chicago were not going to be successfully developed. The local officials saw the terminal employment and increased potential for future economic development as a major benefit. These benefits enabled local officials to cooperate with the UP on development of the site. The construction and engineering firm Ragnar Benson built Global III for the Union Pacific at a cost of $181 million.

In addition to the rail facilities, there is an industrial park adjacent to the intermodal terminal being developed by CenterPoint Properties as a joint marketing partnership with UP. The CenterPoint Intermodal Center at Rochelle is a 289-acre site just north of the terminal. There is also a 200-acre land parcel adjacent to the CenterPoint property that is being marketed by a national commercial real estate firm Martin, Goodrich and Waddell. Both of these sites, as well as several thousand acres of farmland, will have direct access to the UP terminal after a road project is built by the City of Rochelle. Jack Dame Road, shown in Exhibit 24, connects Route 38 with the terminal entrance road, avoiding city streets in Rochelle. Once this road is constructed, development of property north of the UP main line is expected to accelerate.

Services

This facility provides UP with much needed intermodal capacity in the Chicago area albeit at a distance from the center of the city. However, industrial and warehouse expansion is moving west of the city and the UP site has good existing intrastate access both east/west and north/south.

Direct rail-to-rail interchange is accomplished by building blocks of cars at Global III for direct rail movement to connecting railroads in Chicago. This operation has been developed in a relatively efficient and effective manner.

Highway drayage of intermodal freight between local Chicago markets and Global III has proved to be relatively expensive. Due to the highway distance of 80 miles each way and local freight imbalance, Global III has experienced a drayage cost premium of $250–$350 per movement when compared to the drayage of other Chicago terminals. The drayage differential depends on the relative location of the freight customer and the intermodal terminal. In addition, there is a $136 surcharge for tolls associated with drayage service on I-88 between Chicago and Rochelle.

The UP carload and unit train classification yard is not expected to generate local economic development beyond its own employment and vendor purchases. The yard primarily sorts cars and unit train consists for distant points rather than serving local customers.

Competition

Exhibit 26: Rochelle Highway Access

UP competes directly with BNSF for international container business moving over west coast ports. BNSF's Logistics Park Chicago, built on the site of the former Joliet Arsenal, currently provides very effective competition to the UP because it is located only 40 miles from Chicago.

In addition, the CenterPoint Intermodal Center at Joliet has been successful in attracting several large distribution facilities. There is also regional competition for industrial development in La Salle/Peru, IL, 45 miles south of Rochelle on I-80, in Rockford, IL, 20 miles north and DeKalb, IL, 10 miles east. These communities have a larger work force and have been more aggressive in working to develop industry that has been attracted to the region by the UP intermodal terminal.

Success Factors

Global III's primary role for the UP, at present, is to provide capacity for the growing intermodal business that travels through Chicago. The terminal allows UP the opportunity to build interchange blocks for connecting railroads as well as build UP west bound trains outside the congestion of Chicago proper. Rochelle is located at the intersection of I-39 and I-88 and therefore enjoys excellent highway access both north/south and east/west. The region has potential as a major Midwest distribution center that can serve not only the Chicago market but also Milwaukee, Madison, WI. Springfield, IL, and the Quad Cities markets.

Lessons Learned

Union Pacific is making a long term investment in advance of anticipated westward development in the Chicago area. UP acted to secure needed capacity ahead of demand, while the local jurisdiction was cooperative and the price of land was relatively low.

Although the UP terminal has attracted industrial development in the region, development adjacent to the terminal has been relatively slow. There are two issues that will improve future development for the city of Rochelle. One is the development of Jack Dame Road. An important lesson is to include direct access to the intermodal terminal as part of the development plan. The second issue is be competitive with other communities in the region with respect to development. Because of the nature of intermodal, the entire region can benefit from access to an intermodal terminal. Although Rochelle will be the closest community to the terminal, it is still necessary for it to be competitive with other communities in the region in attracting development.

9. Port of Quincy, WA

Overview

The Port of Quincy is a series of industrial parks east of Seattle and Tacoma (Exhibit 27). A rail intermodal facility was built to encourage industrial development, although success was slow in coming. The economic analysis and market planning appear to have been optimistic.

Exhibit 27: Port of Quincy Location

Governance

The Port of Quincy is governed by a three-member Board of Commissioners. Each Commissioner is elected by the citizens of the port district and serves a six-year term. The port district is divided into three commissioner districts following voting precinct boundaries. The Port of Quincy's mission is to stimulate economic growth and prosperity for the region. The Port Commission is primarily responsible for:

- Planning the Port's future and guiding the Port's activities in that direction
- Developing and adopting port district policies and governing operations
- Preparing and adopting an annual budget and authorizing the tax levy amount
- Hiring the staff to oversee the Port's activities

Services

Quincy's short-haul rail initiative was coupled with a competitive pricing policy from NorthWest Container Services, the exclusive container operator. The Port of Quincy can handle dry or refrigerated containers, and offers a dedicated steamship container depot with full maintenance and repair capability. As shown in Exhibit 27, however, Quincy is 200 miles from Seattle by rail versus 160 miles by highway, making it difficult for intermodal rail to compete head-on with trucking.

Exhibit 28: Quincy Industrial Park 1

Industrial Park 2 (Exhibit 29) has been divided into individual parcels. The smallest is less than 7 acres, and the largest over 12, but parcels can be combined to accommodate larger developments. Industrial Park 3 comprises a 50-acre parcel. Both Parks have access to all utilities, such as power, municipal water, sewer and natural gas. And, with rail bordering the site, these properties have excellent loading or shipping options.

Exhibit 29: Quincy Industrial Park 2

Industrial Park 1 (Exhibit 28) is fully leased to two apple packing industries -- Double Diamond Fruit Company and Custom Apple Packers. Vocational training and support is available from community colleges in Wenatchee and Moses Lake as well as Washington Manufacturing Services out of Spokane.

Exhibit 30: Port of Quincy Industrial Park

The Port of Moses Lake, which operates the Grant County International Airport, is the Federal Grantee of Foreign Trade Zone #203.

Non-Freight Developments

Recently, the Port of Quincy has had notable success in non-freight businesses.

- In January 2006, Microsoft purchased 75 acres for a new data storage center. Groundbreaking occurred on May 31, 2006
- In June 2006, Yahoo! signed an agreement to purchase about 40 acres for an undisclosed operation at Industrial Park #4.

Funding

The Port of Quincy has been very successful in obtaining state and federal funding.

- In August 2003, Quincy obtained a $3.5 million USDA low-interest loan to fund rail infrastructure. Senator Patty Murray was instrumental in obtaining the loan.
- In October 2005, the Port of Quincy obtained a $992,000 federal grant to complete the construction of a carload transload facility and upgrade the intermodal facility, including the purchase of lift equipment.
- In March 2006, the Port of Quincy received $400,000 from the State of Washington to fund infrastructure improvements ranging from rail to fiber optics.
- In June 2006, the Port of Quincy received an Economic Development Administration grant of $840,000 to upgrade water mains and supply.

10. California Integrated Logistics Center, Shafter, CA

Overview

There is a well-publicized effort to develop an "inland port" near the City of Shafter, north of Bakersfield (Exhibit 31), connected to the Port of Oakland by a rail shuttle. The City of Shafter is the sponsor, but the effort also involves local industrial park developers. The industrial park development is the "International Trade & Transportation Center" and the Shafter intermodal initiative is the "California Integrated Logistics Center".

Exhibit 31: Shafter CILC Site

According to the sponsors, the facility would serve both domestic and international needs, provide container depot and Container Freight Station (CFS) services, and offer a Foreign Trade Zone opportunity. The claimed advantages of the Shafter location include:

- Proximity to exports including hay, cotton, citrus, almonds, and pistachios
- Proximity to major import distribution centers, including Sears, IKEA, Target, and Wal-Mart (although only Target is adjacent).

The Bakersfield area is typically considered an extension of the Southern California market and most marine cargo originating or terminating in the Bakersfield area is assumed to move via the ports of Los Angeles and Long Beach. By highway, Shafter is about 256 miles from Oakland but just 150 miles from Long Beach, which is why the Bakersfield market is ordinarily tied to the Southern California ports. Shafter is roughly equidistant by rail from Oakland and Long Beach, 270-290 miles to either port depending on the route.

Exhibit 32: Shafter Project Site

Legislation

The Shafter project sponsors have taken the unusual step of introducing legislation to give Shafter precedence over other inland port projects. The current version of SB 1010 would establish the Shafter site as a unique circumstance.

Economics

At an early point in the development of the Shafter project, sponsors envisioned using revenue bonds to finance the construction of an intermodal facility. The revenue bonds would be repaid from the intermodal terminal operating profits.

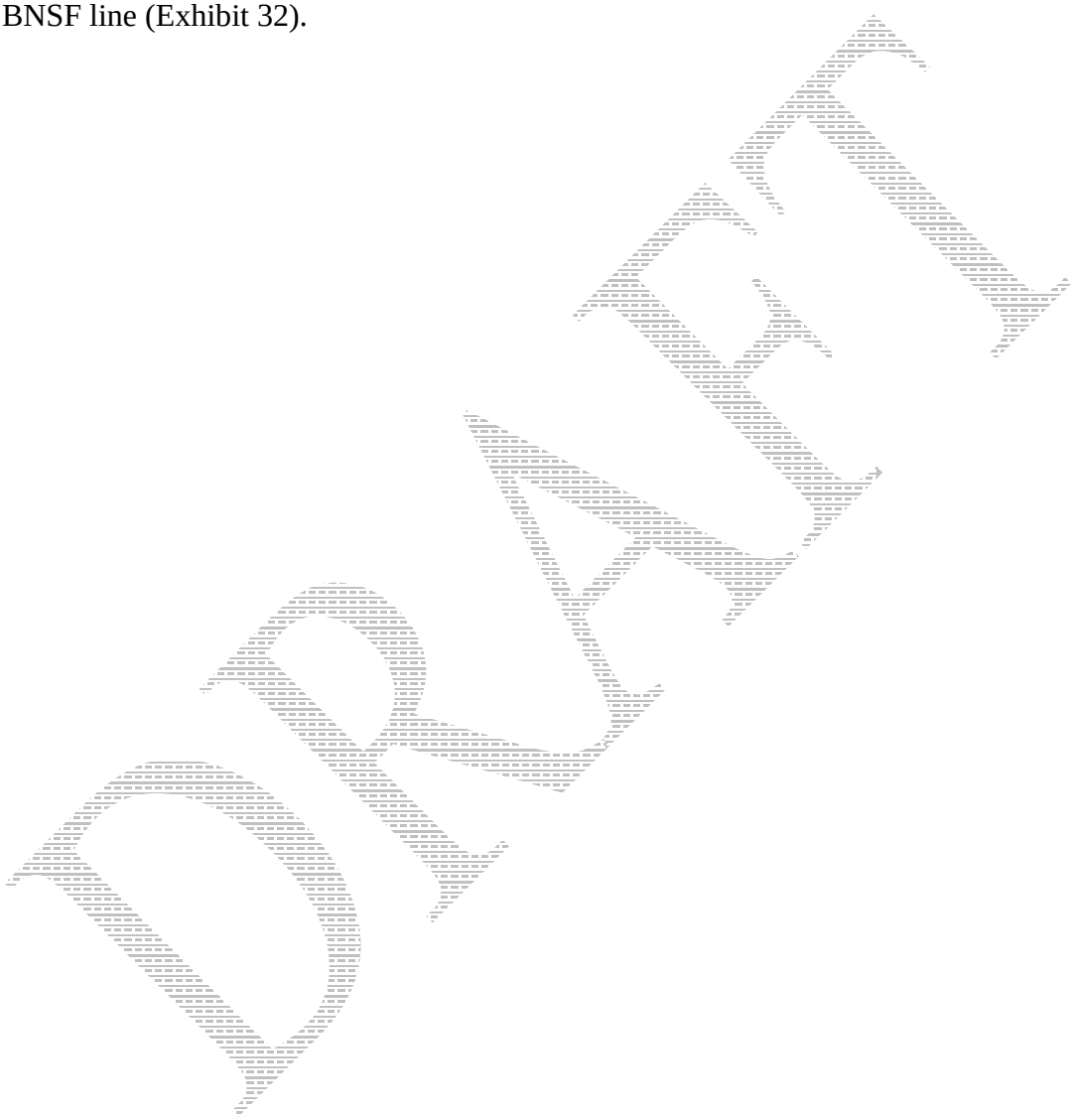
The difficulty with this plan is that intermodal terminals themselves do not ordinarily yield operating profits, so there would be no net revenue to cover the bonds. Railroads profit from intermodal line haul operations between terminals, not from owning the terminals themselves. Terminal contractors profit from providing lift services and ancillary services under contract and do not own, lease, or build terminals. In other words, no one pays rent on intermodal terminals. The few privately owned intermodal terminals in North America (such as Stackbridge in Massachusetts or Port of Tucson in Arizona) generate their revenue from lift fees, not rent.

Status

A review of the available reports and presentations on the Shafter initiative suggests that the proposal faces some significant near-term obstacles. There is no intermodal terminal at Shafter yet. The sponsors obtained $5 million in funds from the State of California, which are being used to install a track connection between the industrial park/terminal site and the BNSF mainline. Although the sponsors state that funding will be forthcoming for terminal

construction, it is not clear that sufficient funding will be available. The sponsors note the difficulty of placing debt unless there is a service and volume commitment. The study team was unable to locate any market analyses beyond the conceptual level, or any financial or economic analyses of costs, rates, etc. Railroad interest in serving Shafter has been minimal, and the project lacks service commitments from either railroad.

An interim facility was opened along the UP line on the east side of the Shafter area but there has been no significant business. A track connection is being built to an industrial park adjacent to the BNSF line (Exhibit 32).

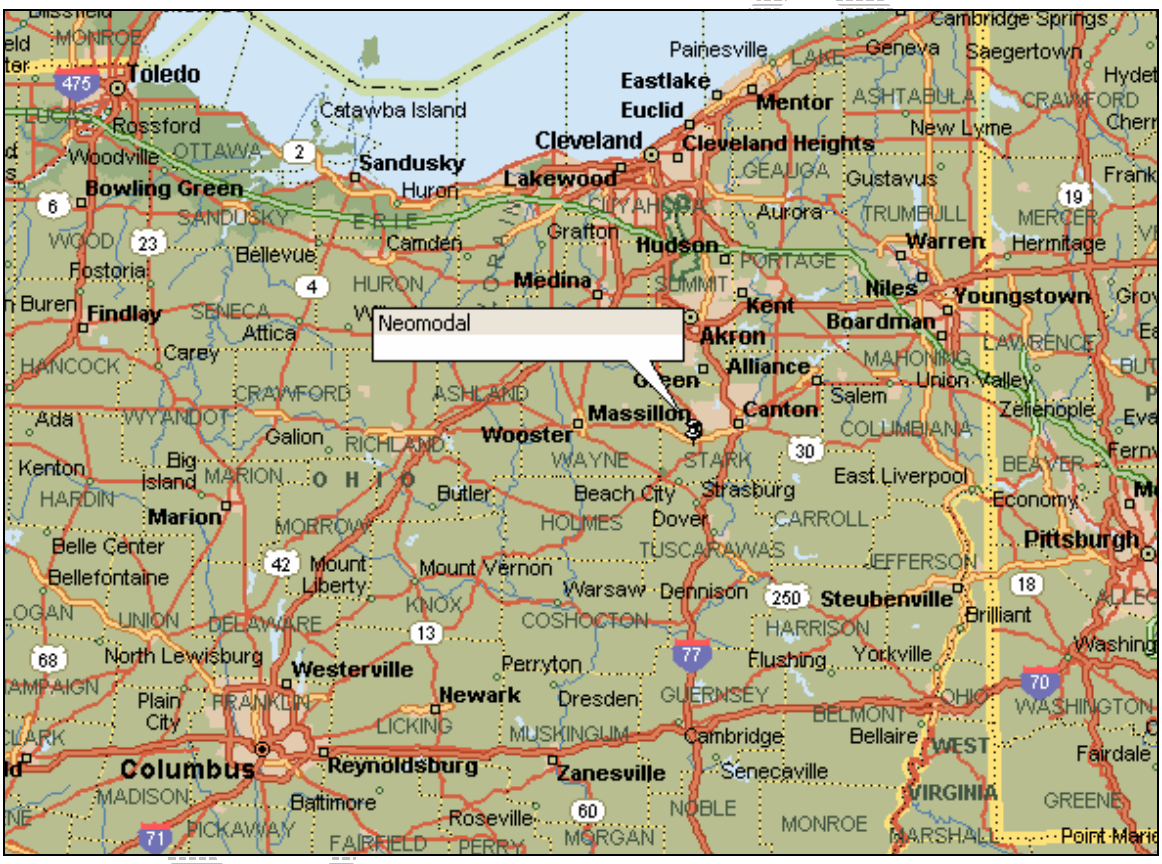


11. Neomodal, Stark County, Ohio

Overview

The Stark County intermodal terminal (Neomodal) was opened in 1996 under the auspices of the Stark County (Ohio) Development Board. (Exhibit 33) It is a good example of a new terminal built with government funding, without benefit of a comprehensive marketing plan, and without private sector financial commitment. Perhaps this could be best characterized as a "build it and maybe they will come" approach. The result has been a terminal with little business.

Exhibit 33: Neomodal Location



Terminal

The 28-acre terminal (Exhibit 34) is a technologically advanced design using overhead cranes that can be operated from the ground. The gate facility was developed using the best technology available at the time.

Exhibit 34: Neomodal Terminal

The terminal is located on the Wheeling and Lake Railroad (WLE). The location on the regional line was chosen to provide competitive access to three Classes I railroads. The trade off with this feature was the introduction of another railroad into the routing. The specific location was chosen because the Development Board already owned a large parcel of property in the area, which was also being developed as an industrial park.

Marketing

The terminal was justified on the basis of a perceived economic need in the area, but no formal market study was performed. Apparently Neomodal was expected to draw business from Cleveland, as well as new business off the highway. For a variety of reasons the traffic has not materialized.

Relationships with the connecting Class I railroads were never good, and traffic volumes were not high. A short haul movement was required to reach either CSX or NS, and the usual rate division problems exacerbated the problem. At one point terminal volume reached 500 lifts a month, but recent experience has been much lower. CSX cancelled rates to Neomodal at the end of 1999, with the opening of their expanded Cleveland terminal. The sale of Conrail to NS and CSX made the facility much less viable.

In 2000, Canadian National announced it would begin service to Neomodal. This prospect resulted from trackage rights granted by the Surface Transportation Board to the WLE as part of the split-up of Conrail. To date this opportunity has not produced significant results and Neomodal CN is not actively advertising its relationship with Neomodal.

Funding

A line of credit from Congestion Management and Air Quality (CMAQ) was used to fund the project. The County donated the land. The $8 million CMAQ loan was to be paid by operating profits; however, there was a provision in the agreement between the Ohio DOT and the Stark Development Board (SDB) releasing SDB from financial payment responsibility in the event of operating deficits. Loan repayments were to be remitted equally to three parties: Ohio DOT

CMAQ revolving fund; Ohio's Erie Canal Heritage Account (established under the National Heritage Corridor program); and Stark County Area Transportation Study (the MPO). Instead of a 20 percent direct local match, OH DOT used toll revenue credits from tolls generated by the Ohio Turnpike Authority under provisions of Section 1044 of ISTEA. (From FHWA)

The project was overseen by a management committee of five people, including representation from ODOT. Construction of the terminal was completed in a period of one year; 16 separate permits were required. Construction costs included only 10% engineering overhead versus the "usual" ODOT's 30-35%. As a result the terminal came in under the $11.2 million budget.

Lessons Learned

In order to be successful a project of this type needs to have the following:

- A substantial market to serve and an effective plan for marketing the service.
- Willing and committed Class I rail carriers.
- Sufficient funding to develop the project.

This project enjoyed only one of the three necessary prerequisites.

Competing facilities are located in Cleveland (55 mi.), Columbus and Pittsburgh (90 mi.), and Toledo (120 mi.), all of which are much larger population centers with more significant concentrations of business. The Neomodal planners may not have thought clearly about the market and potential competition in the market. Even before the Conrail split that further jeopardized their market, they did not properly consider the relative ability of competing rail systems to serve these population centers.

12. Detroit Intermodal Freight Terminal (DIFT)

Overview

Based on a consultant study completed in 1994, Michigan DOT (MDOT), with the support of GM, Chrysler and Ford, embarked on a project to consolidate the intermodal terminals of the four Class 1 rail carriers serving Detroit. At that time Conrail, Norfolk Southern (NS), Canadian National (CN), and Canadian Pacific (CP) operated intermodal terminals in Detroit. The concept was the creation of a consolidated common user terminal located at Conrail's Livernois Yard in Southwest Detroit. Livernois Yard, also referred to as Junction Yard, was selected as the site for the consolidated terminal because of its central location and rail connection to all Detroit carriers. In addition, at nearly 350 acres, this site was the only rail-served site large enough to accommodate a consolidated terminal. The project was named Detroit Intermodal Freight Terminal and referred to as DIFT.

The purpose of the DIFT project was to support the economic competitiveness of southeastern Michigan and of the State by improving intermodal freight transportation and ensuring sufficient terminal capacity to meet future intermodal demand. Specific objectives included:

- improving highway infrastructure to the common location
- reducing the distance and related cost for trucking between the terminals, and
- assisting the rail carriers in providing the terminal capacity needed for future demand.

This project was extremely ambitious because of the number of operational, commercial and engineering issues that needed to be resolved. At that time, Conrail had no interest in giving up its Livernois Yard property for use by other rail carriers and the project never advanced until Conrail was acquired by CSX and NS. The acquisition of Conrail by CSX and NS, in June 1997, provided an opportunity for Michigan DOT to revive the terminal consolidation project. As a condition of the Conrail merger, NS and CSX agreed to cooperate with MDOT on DIFT.

High-level political support for the project by Governor John Engler, Congresswoman Carolyn Cheeks Kilpatrick, and Congressman John Dingell enabled an $18 million earmark for the project within TEA-21 in 1998. Section 1602, High Priority Project 1221, describes the project as, "Construct intermodal freight terminal in Wayne County, Michigan". This funding enabled the DIFT project to be reactivated.

Detroit Intermodal Terminals

Following the integration of Conrail operations into NS and CSX in June 1999, Conrail's Livernois Avenue intermodal terminal was shared by NS and CSX. The freight-car switching operations at Livernois yard continued to be operated by Conrail on behalf of both NS and CSX who had equal access to Conrail's Detroit customers. In addition, NS was operating two other terminals in Detroit: a Triple Crown Roadrailer terminal at its Melvindale Yard, and a small intermodal terminal at Delray. CP operated two intermodal terminals in Detroit. The first was CP Expressway, a specialized terminal for CP's Expressway branded service to Toronto and

Montreal. The second CP terminal, CP Oak, was an international container terminal located at CSX's Oak Yard. The Oak terminal was leased from CSX. CN operated the former Grand Trunk Terminal, Moterm, located just north of the Detroit city line in Ferndale, MI. Exhibit 35 shows the location of these terminals along with Conrail's Livernois Yard.

Exhibit 35: Detroit Intermodal Terminals

DIFT Progress

Utilizing the TEA-21 funding, MDOT completed the Detroit Intermodal Freight Feasibility Study in December 2001. The conclusion of the feasibility study was to advance the planning for DIFT by preparing an environmental impact study (EIS).

As a part of the EIS, MDOT identified four DIFT alternatives:

- **Alternative 1. No Action:** Railroads will develop their existing intermodal terminals with no government funding assistance or oversight.
- **Alternative 2. Improve/Expand:** Proposes improvements will be made to existing rail terminals with federal and state government funding assistance.
- **Alternative 3. Consolidate:** Proposes the intermodal operations of all four railroads will be consolidated at the Livernois Yard area with federal and state government funding assistance.

- **Alternative 4. The Composite Option:** Proposes that the intermodal operations of CSX, NS and CP will be consolidated at the Livernois Yard area, while CN Moterm terminal will be improved at its existing location. Projects will be funded with federal and state government funding assistance.

MDOT continues to advance the EIS and conduct public hearings to obtain community and stakeholder responses to the various alternatives. The EIS schedule, revised in December 2005, shows determination of the preferred/recommended alternative and finalization of the EIS in October 2006 with a Record of Decision (ROD) by FHWA in December 2006. Although funding of preliminary engineering and EIS development have come from the $18 million TEA-21 earmark, actual project funding requires completion of the EIS and FHWA ROD. Once the ROD is issued, the remaining funds from the original $18 million earmark can be utilized for the DIFT project. In addition, any future federal funding authorizations for the project can be utilized.

CSX and NS Intermodal TerminalExpansion

In 2002 the shared CSX and NS intermodal terminal at Livernois Yard was well beyond its design capacity. The terminal occupied about 35 acres on the east side of Livernois Yard and had a nominal capacity of about 60,000 lifts. Current operations of both carriers are estimated at 90,000 to 100,000 lifts. In addition, since NS and CSX are direct competitors, sharing a common facility created operational and commercial conflicts. As a result, CSX and NS agreed that they would work together to expand their terminal capacity in Detroit. This was done by creating a new facility on about 65 acres of adjacent Livernois Yard property for CSX and expanding and improving the existing facility to provide NS with a comparable 65-acre terminal.

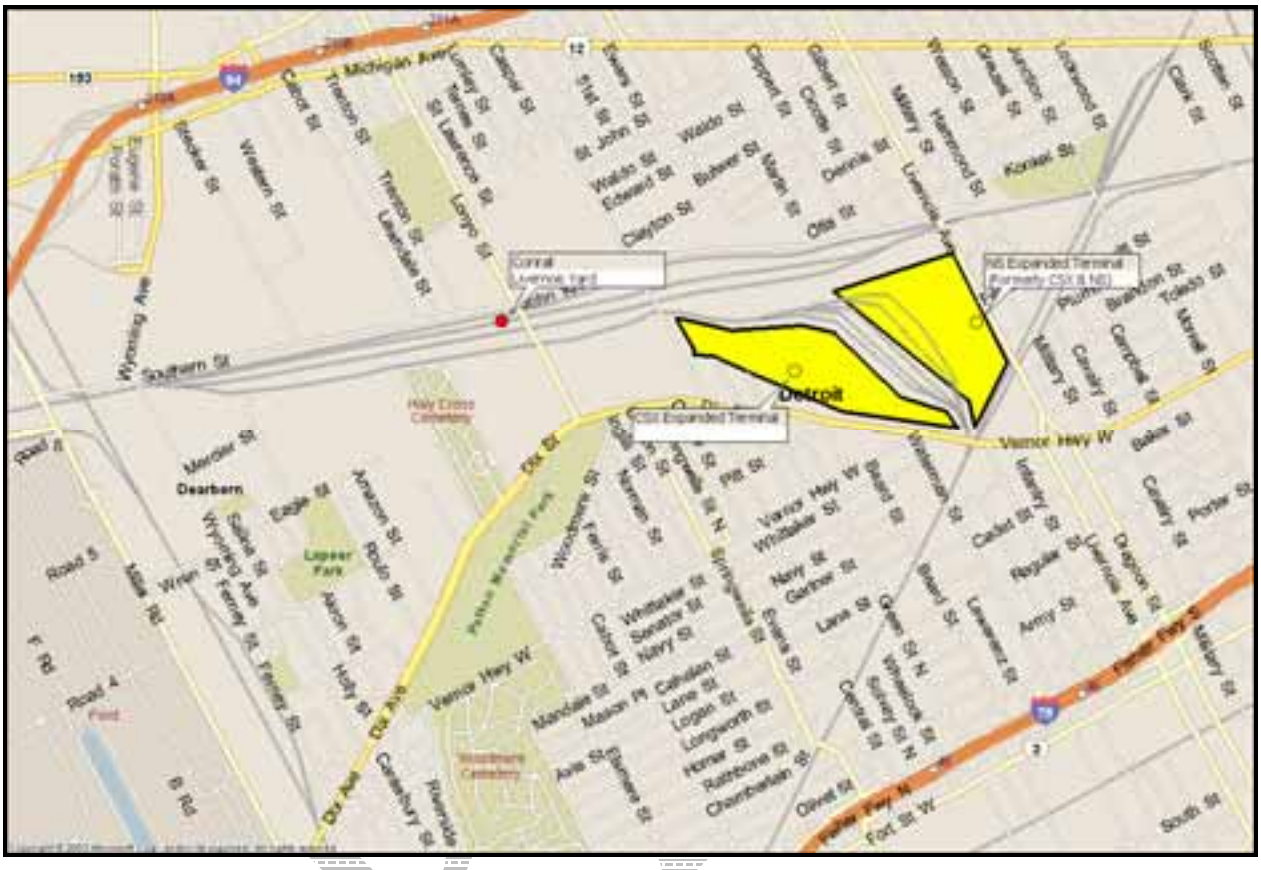
Since this project was consistent with the DIFT, MDOT agreed to consider a loan/grant application for the project under its current capital program for funding of transportation improvements. The MDOT program provided matching-grant funding under a five-year loan which converted to a grant over the five-year loan term. The MDOT loan agreement contractually obligates the carrier to make five loan payments to pay off the loan. However, in each year that the borrower achieves certain agreed operating performance, the loan payment is converted to a grant and waived.

Since the CSX and NS terminal expansions were located on Livernois Yard property owned by Conrail, the application for the MDOT grant and the final loan agreement were completed by Conrail on behalf of CSX and NS. The overall cost of the expansion of both terminals was between $10 and $11 million. $4.5 million of this amount was funded through the MDOT program. The MDOT loan agreement provided an operating performance requirement in terms of combined CSX and NS lifts, which were agreed to by Conrail on behalf of CSX and NS. All agreements necessary to advance the project were completed by the end of 2003. The CSX terminal was completed in 2004 and the NS expansion was completed in 2005. Exhibit 36 shows the location of the two terminals within the Livernois Yard complex.

Although the CSX and NS expansions at Livernois Yard were not a part of the DIFT project, they did make a significant contribution to the DIFT objectives. The combined capacity of the two terminals more than doubled the capacity of the former Conrail terminal. The project also provided land for future CSX and NS expansion and separated the terminal operations of the two

competitors. This separation will facilitate future expansion and investment as each carrier can advance projects based on its own needs.

Exhibit 36: Livernois Yard Expanded Terminals



Lessons Learned

This project has extended for more than a decade. The auto industry was always the key to this effort and over this extended period the auto manufacturers have lost the interest and commercial clout necessary to bring the railroads and the public sector together to accomplish this project.

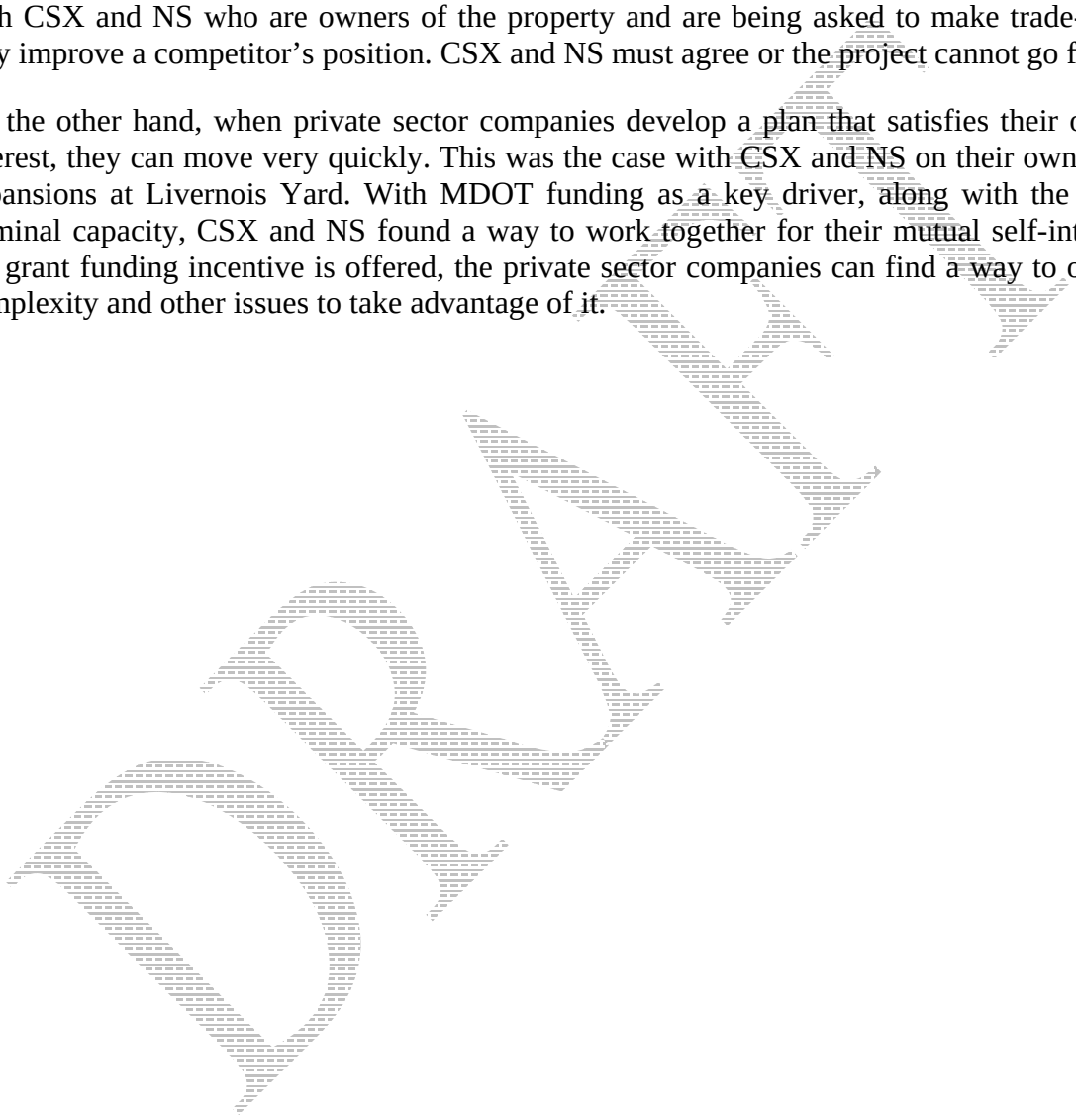
Initially, the negotiation over the acquisition of Conrail by CSX and Norfolk Southern added delay, and the failure of these railroads to provide the auto industry with competent service during the integration of Conrail led the auto industry to reduce its support for railroads in general and DIFT in particular. In addition, the auto industry has substantially changed the way it buys transportation service, relying increasingly on specialized logistics firms and loosing touch with the strategic opportunity that might be available if the DIFT were constructed.

Although the DIFT project was initially well supported politically and had a significant amount of funding, the project seems to be stalled because of its complexity. MDOT appears to be having difficulty in getting and maintaining a consensus regarding the need for the project that is satisfactory to all four rail carriers, the auto industry, and the public stakeholders.

A further complication is that over the development period there have been multiple governors, mayors, and public officials involved in the public process. Because there have been community concerns regarding the development, DIFT has become a political issue.

The inherent difficulty of getting large competing companies to reach long-term agreements on complex operating and commercial issues can be a major constraint to the project. Each company's driving self-interest makes it very difficult to create a consolidated operation without in some way disturbing the existing competitive balance. This is particularly true when dealing with CSX and NS who are owners of the property and are being asked to make trade-offs that may improve a competitor's position. CSX and NS must agree or the project cannot go forward.

On the other hand, when private sector companies develop a plan that satisfies their own self-interest, they can move very quickly. This was the case with CSX and NS on their own terminal expansions at Livernois Yard. With MDOT funding as a key driver, along with the need for terminal capacity, CSX and NS found a way to work together for their mutual self-interest. If the grant funding incentive is offered, the private sector companies can find a way to overcome complexity and other issues to take advantage of it.



13. Port of Montana

Overview

Montana is served by two Class I railroads, Union Pacific and BNSF. There are three intermodal terminals in the state, all located at major highway junctions (Exhibit 37). BNSF operates an active facility in Billings (I-90/25 and I-94). The Port of Montana operates a general-purpose rail terminal in Butte (I-15 and I-90), which presently does not have any intermodal rail service. Finally there was a BNSF intermodal terminal in Shelby (I-90 and US-2), which was active as late as 2002.

Exhibit 37: Montana Project Sites

The Port of Montana

The Port of Montana (Exhibit 38), located just outside of Butte, is also located at the only rail junction of the BNSF and UP railroads in Montana; and at the intersection of two major interstates, I-15 and I-90. The facility has been in existence for 32 years and has served as the Union Pacific connection in Montana.

Exhibit 38: Port of Montana

There is currently no intermodal service, the railroads having cancelled rates for the terminal. Until a couple of years ago, the terminal was handling about 1200 intermodal loads annually, primarily outbound agricultural products. They do have two lift machines.

The Port is a multiple-use facility and was built using funds obtained by the Port from an unrelated legal settlement. As a quasi-government facility, it is currently partially funded by a tax from Silver Bow County.

Traffic currently handled is:

- Forest products. A separate 85,000 sq-ft. building with five railcar capacity, plus paved outside storage.
- Bulk handling. Fertilizer and various mining by-products (Butte is located on what was once known as "the richest hill on earth" (copper).
- Intermodal transloading. Basically moribund except for occasional specialty loads.
- Auto transloading. Site is a major auto distribution center for Montana.
- Other. The facility handles a variety of other products such a paper rolls, scrap paper, etc.

BNSF Billings

BNSF Billings is on the BNSF railway and near the intersection of I-90 and I-94. In that location I-90 is the northern extension of I-25. BNSF Billings is a typical rail-owned facility whose operation is contracted to Dick Irvin Trucking. BNSF Billings is a marginal intermodal facility because of its small size. It remains because United Parcel Service, the rail industry's largest intermodal customer, is the anchor user of the terminal.

BNSF Shelby

BNSF Shelby is on the BNSF railway near the Canadian border at the intersection of I-15 and US2. The facility is now closed. BNSF Shelby was also a rail-owned facility whose operation was contracted to Dick Irvin Trucking.

The concept was that Canadian longer-combination vehicles could be operated across the border to Shelby, then loaded on the train for distribution to points south and east. The facility was successful in penetrating this market, but the volume was small and unbalanced. There was some concept toward also moving international exports through Shelby, but again the business was heavily balanced outbound and only a very small number of international containers were available for loading in the market. An additional small, unbalanced inbound movement of parcel and less-than-truckload shipments in private trailers apparently developed over time, but was not sufficient to make the facility viable in the long term.

Lessons Learned

Size

In order for a Class I railroad to be interested in a particular new market for intermodal service the potential volume needs to be at least 20,000 loads per year.

Balance and Equipment

Many small terminal projects fail for lack of balanced equipment movements. This is complicated because of the many different types of domestic and international highway equipment. Balance is typically worse in small markets.

14. Europort Vatry, France

Overview

Europort Vatry is an all-cargo airport and associated logistics park located in France approximately 100 miles east of Paris (Exhibit 39). Europort Vatry was planned and built on a former NATO base site to accommodate air cargo shippers.

Exhibit 39: Europort Vatry, France

Vatry includes a 24-hour all-cargo airport, road and rail connections, and a logistics center. Direct links to major highways provide for efficient trucking. The airport has no night-flight restrictions, a 12,635-foot runway, and all-weather landing capability. Flight operations can occur during the night because Vatry is centered in a low-population area.

Vatry is under contract management by the Montreal Airport Authority under an agreement lasting through mid 2008.

The cargo terminal has 45,200 square feet, including refrigerated space. The construction of a second freight terminal began in April 2006.

Logistics Developments

The associated logistics center is 1,040 acres with a potential to add 2,220 acres in the future. Two large business parks have been constructed: one 265 hectares in area in Zone 1, the other 157 hectares in area in Zone 2. Some 70 hectares in total have been set aside for larger-scale operations. Incentive funding is available from local, regional and European authorities in addition to on-site tax incentives.

Recent cargo growth has been very rapid. Vatry International Airport handled 10,830 metric tons of freight in the first quarter of 2006, up more than 72.6% on the same period last year. Vatry handled 37,670 metric tons of freight in 2005 compared with 19,128 tons in 2004 and 8,730 tons in 2003.

2004 saw Vatry succeed in attracting a number of cargo carriers and becoming, in some cases, a traffic hub for operators. For example, Coyne Airways operates several weekly services to the Caspian Sea region while Avient uses Vatry as a European base for flights to and from Africa.

The main business sector locating at Vatry is distribution. Starting in 1998, the initial tenants included:

- Air Liquide Welding, which distributes welding equipment throughout Europe;
- JCH Associates, which warehouses and distributes toys and textiles;
- Vatinel, a Customs broker;
- Transports Vertusiens, a parcel transport company specializing in foods; and
- Varty Poids Lourds, a forklift repair company.

Major new tenants include Prologis, a leading world logistics real estate investor, and TNT, which operates a European distribution center for Fiat.

Success Factors

The location of Europort Vatry appears to be the single greatest success factor. Vatry is centrally located within Europe, with 75% of all freight traffic in the European Community concentrated within an 800-km radius of the airport complex.

Another major growth factor has been the marked development in perishable freight (fruit, vegetables and fish). Vatry's perishable goods center is one of the largest facilities in Europe and includes multiple cold-storage rooms designed specifically for fresh vegetables, fruits and flowers, as well as fish, meat and prepared foods. European regulations require the separate handling of various types of food products. Vatry International Airport's perishable goods center is certified by European authorities and is a recognized European cargo Border Inspection Point, both of which constitute major competitive advantages for the airport. As a result, products transiting through Vatry can be distributed throughout the European Community with no additional customs approval.

15. San Bernardino International Airport

Overview

The Inland Valley Development Agency (IVDA) and the San Bernardino International Airport Authority (SBIAA) oversee the redevelopment and reuse of the former Norton Air Force Base to civilian and commercial use. The objectives of both agencies are to replace the jobs lost when the base closed, improve the infrastructure, landscape, and aesthetics of the local and surrounding areas, and promote economic and aviation-related activities. Alliance California is a project of the Hillwood Group, who are also the developers at Alliance, TX. Rail intermodal service uses the BNSF San Bernardino terminal. The project has attracted aircraft-related business centers and commercial distribution centers.

Exhibit 40: SBIA and Alliance California

Inland Valley Development Agency (IVDA)

The Inland Valley Development Agency (IVDA) is a joint powers authority comprised of the County of San Bernardino and the Cities of San Bernardino, Colton, and Loma Linda. Formed in 1990, the IVDA is responsible for the redevelopment of the non-aviation portion of the former Norton Air Force Base. In addition to the approximately 600 acres on the former base, the IVDA also has a redevelopment project area of approximately 13,000 acres of surrounding properties. The land use designations within the project area include: light and heavy industrial, office, commercial and residential. In 2002, the IVDA entered into a Master Disposition and Development Agreement (DDA) with Hillwood/San Bernardino LLC, a Texas-based development company, which serves as the master developer of the project commonly known as Alliance California.

San Bernardino Int'l Airport Authority

The San Bernardino International Airport (SBD) is located 60 miles east of the Los Angeles International Airport (LAX). SBD is surrounded by major interstate freeways (I-10, I-215 and I-30/I-210), and is within two miles of the BNSF intermodal facility. SBD offers Customs clearance, aircraft ramp space, room for new development opportunities and expansion potential, including Foreign Trade Zone and LAMBRA tax incentives.

- Businesses at SBD itself are primarily aircraft-related.
- BSA International, an FAA-certified repair station for aircraft components.
- Blue's Aviation, a Fixed Base Operator (FBO). An FBO provides numerous services for local and transient aircraft. Services include fuel, light aircraft maintenance, general aviation aircraft tiedown and storage, and numerous accommodations for the flying public.
- Aircraft Rescue & Fire Fighting (ARFF) Training Center.
- Aero Pro, a private company specializing in aircraft painting.
- US Forest Service air tanker base.

Negotiations are currently underway with a company to function as an FAA-certified repair station performing inspection, overhaul, and maintenance services for large commercial aircraft. These services can be beneficial to tenants who base their aircraft operations at SBD.

Alliance California

Alliance California is a 2,000-acre "trade and logistics center" adjacent to SBD. It incorporates a Foreign Trade Zone and an on-site CBP office.

The FTZ is operated by Alliance Operating Services, the same firm that operates the FTZ at Alliance Texas.

There are multiple buildings in existence or under development at the site totaling roughly 64 million square feet. Tenants include MedLine, Pep Boys, Kohl's, Mattel, and Stater Bros. Grocers. Hillwood estimates that over 29,000 jobs have been created there since 2000.

16. Kelly USA/Port San Antonio

Overview

In 1995 the Base Realignment and Closure Commission (BRAC) decided to close Kelly Air Force Base. At that time the City of San Antonio created the Greater Kelly Development Corporation (GKDC) as a public development corporation under Texas law to manage the transition of Kelly Air Force Base from a government facility to private ownership. In 1999 GKDC was dissolved and Greater Kelly Development Authority (GKDA) was created as its successor. GKDA is governed by an eleven member board that is appointed by the Mayor and City Council. GKDA is managed by an executive director responsible to the Board. GKDA can own property, enter into contracts and has bonding authority.

In 2001 the Kelly Air Force Base (Exhibit 41) was officially closed and control of approximately 1,900 acres of Base property, with 11.8 million square feet of buildings, was transferred to GKDA. At that time the development was branded KellyUSA. The primary mission of GKDA under Phase I of its redevelopment plan was the privatization of Base property. By the end of 2004 about 96 % of the existing commercial/industrial property had been leased to 73 tenants and GKDA was essentially sold out.

Exhibit 41: Kelly Air Force Base

Phase II of the development plan, beginning in 2004, calls for the infrastructure projects necessary to attract new development to KellyUSA. These include a number of road and drainage projects needed to make properties suitable for Class A development. It was estimated that these improvements along with new construction will require about $364 million of capital. About 67%, or $245 million, of funding is expected to come from private sources, with the remainder coming from city, state, federal and GKDA sources.

Port San Antonio

Phase III of the development plan turns KellyUSA into an international cargo port. This is consistent with the city-wide strategy named Inland Port San Antonio. This strategy promotes the growth of all of the transportation, distribution, and logistics facilities which make up the city's capacity to serve international trade. The primary focus of this initiative is on the trade corridor with Mexico, particularly those industries located in Monterrey, Mexico. In response to this strategy the GKDA board, in early 2006, approved a name change to Port Authority of San Antonio (PASA) and changed the industrial park brand name from KellyUSA to Port San Antonio. PASA is currently developing a master plan for development of 700 acres of industrial and commercial property at Port San Antonio. The plan calls for three types of development, aerospace and aeronautical at Kelly Airport, commercial and mixed use at Kelly Town Center, and rail-served industrial at East Kelly Railport.

PASA is just beginning the implementation of its Phase III plan. One of the key drivers is San Antonio's location as a South Texas hub. San Antonio is located at the juncture of I-10, I-35 and I-37. Exhibit 42 provides an area map showing San Antonio's interstate highway network and the access to Port San Antonio. The largest US / Mexico gateway crossing is located in Laredo about 150 miles to the south via I-35. Seventy five percent of all goods moving between the U.S. and Mexico flow through San Antonio.

Exhibit 42: Port San Antonio

Port San Antonio has an 11,500-foot runway which can handle 747-400 air freighters. An 80,000 square foot air cargo terminal is under construction as part of the Phase I air cargo development plan. This facility will be completed in 2007, enabling start up of commercial air freight service.

On the east side of Port San Antonio, PASA is developing the East Kelly Railport. This area is adjacent to the Union Pacific rail yard and is served by Union Pacific. PASA is developing the rail infrastructure and necessary rail operating capability to provide its own local switching service for rail carload tenants. PASA has recently located a railcar transload operator who is building a 360,000 square foot rail-served warehouse and transload facility.

Port San Antonio tenants will be able to utilize Foreign Trade Zone 10. In addition, a federal inspection facility is being established that will include offices of U.S. Customs, U.S. Department of Agriculture, Food and Drug Administration and other federal agencies involved in clearing and inspecting international cargo. This facility will be located at the air cargo center but will also be available for use by rail customers as well as Foreign Trade Zone customers.

San Antonio Rail Intermodal

The Union Pacific has two small intermodal terminals in San Antonio. The Quintana Road terminal is located at the Union Pacific yard adjacent to Port San Antonio. The Quintana Road facility handles north-south business from and to Mexico. The Sherman Road terminal is in northeast San Antonio and serves east-west business. The current intermodal terminals are small and relatively inefficient and Union Pacific is considering the feasibility of consolidating these terminals into a new facility. The project is in its early stages and a site location has not been identified.

PASA has no plans for development of a rail intermodal terminal at Port San Antonio. There is not enough land available for a large-scale terminal or the associated distribution warehouses at existing industrial sites. PASA is not relying on large-scale rail intermodal service to handle import and export containers as part of its development plan.

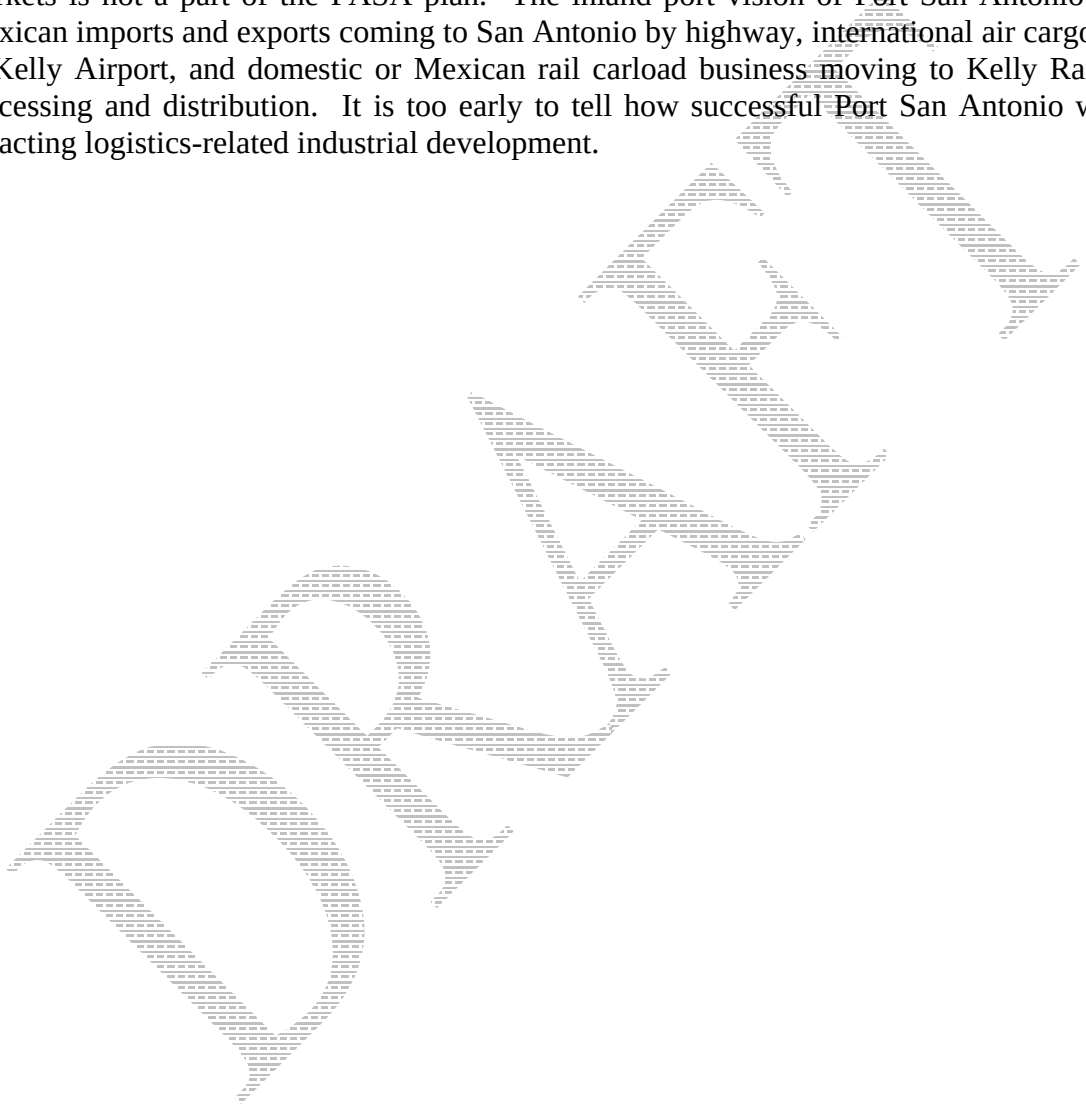
Port Authority of San Antonio Funding

In its early years GKDA received City grants as seed money to begin operations. Once GKDA took control of the Kelly Air Force Base Property it was able to fund its operations from lease revenues. Today PASA generates about $29 million in gross revenue, with net income of about $3.2 million. About 70% of PASA revenue comes from aerospace or aeronautical industries.

PASA has authority to issue revenue bonds and has issued $6 million of bonds to finance a hanger for Boeing's aircraft repair facility. These bonds were secured by lease revenues. PASA is currently considering issuing bonds for about $30 million in capital projects. These bonds would be secured by its operating income and proceeds from tenant infrastructure charges. PASA property is not subject to property tax. However, in lieu of property tax it assesses an infrastructure charge based on 75% of assessed property value. These charges generate between $3 and $4 million annually and are used for infrastructure projects. This revenue stream can also be used to secure bond funding.

Lessons Learned

The primary driver for the Greater Kelly Development Authority since it took control of Base property in 2001 was industrial development and replacement of the lost Air Force jobs. Although there are a few logistics services companies, logistics and inland port operations have not been a key driver of development. The Inland Port San Antonio city-wide strategy appears to have been adopted by PASA in early 2006. The inland port concept of ocean containers moving in to Port San Antonio by rail from west coast ports and being distributed to south Texas markets is not a part of the PASA plan. The inland port vision of Port San Antonio involves Mexican imports and exports coming to San Antonio by highway, international air cargo arriving at Kelly Airport, and domestic or Mexican rail carload business moving to Kelly Railport for processing and distribution. It is too early to tell how successful Port San Antonio will be in attracting logistics-related industrial development.



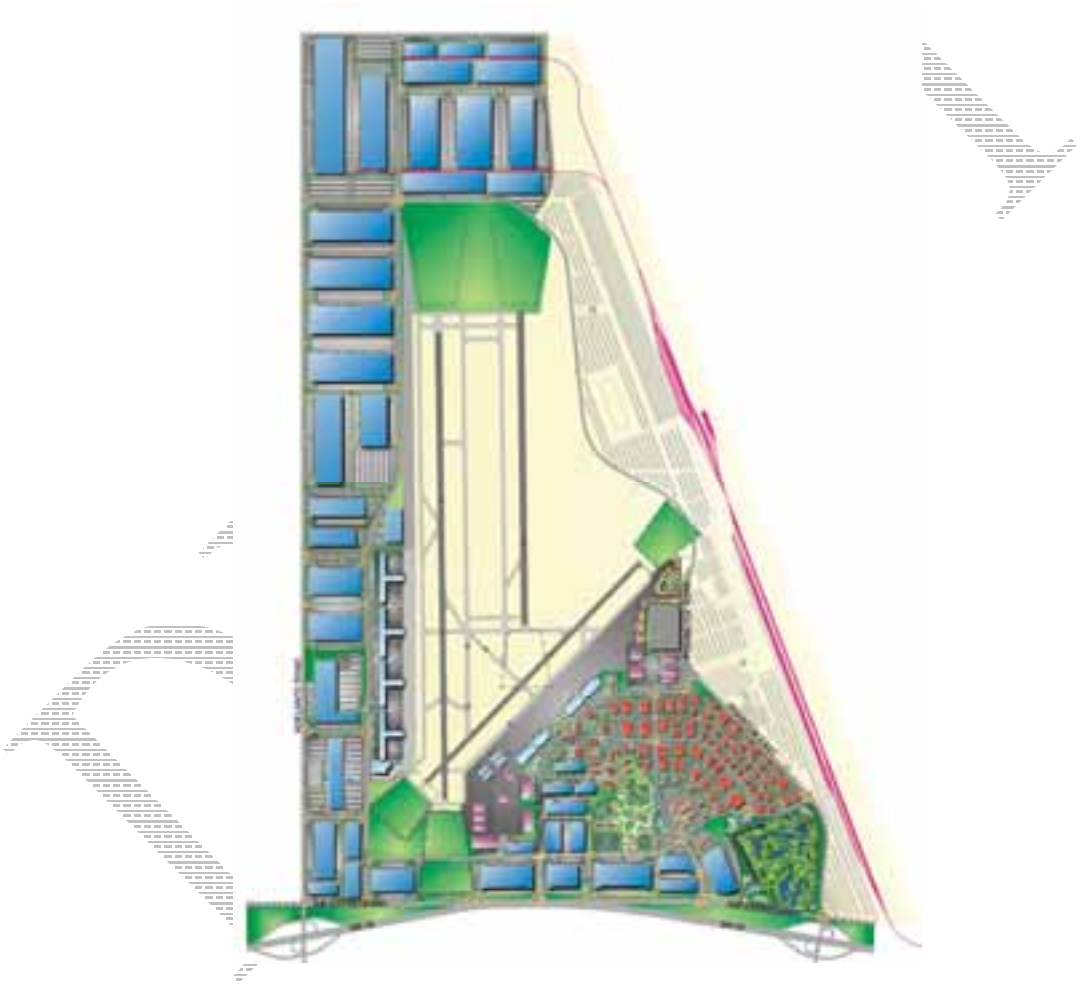
17. Southern California Logistics Airport

Overview

The SCLA is the former George Air Force Base, being developed by Stirling International into a 4,000-acre master-planned business and industrial airport complex. (Exhibit 43).

To date, the project has attracted primarily aircraft industry plants and retail distribution centers served by over-the-highway trucks.

Exhibit 43: SCLA Plan



As shown in Exhibit 44, SCLA is actually at Adelanto, although it is commonly referred to as being at Victorville. Adelanto is part of the Victor Valley, a developing region north of Cajon Pass and separated by Cajon Pass from the Inland Empire market. In may respects, the future for SCLA is in this developing market rather than in competing with San Bernardino, March GlobalPort, and Ontario for the Inland Empire market.

Exhibit 44: SCLA Location

SCLA is a 500-acre complex with a number of target business segments, many of which are not directly related to air cargo or freight transportation.

- Air Cargo
- Aviation Maintenance
- Rail Complex
- Real Estate Development
- Military Defense Programs
- Flight Testing
- Advanced Flight Training
- Charter Passenger Service
- Business & Executive Jet Travel Center

In this respect SCLA has much in common with the other logistics airports.

Business tenants with a direct cargo focus include:

- ConAgra Foods
- Nutro Products, Inc.
- M & M / Mars
- Nestle Waters North America
- GTE (Verizon)

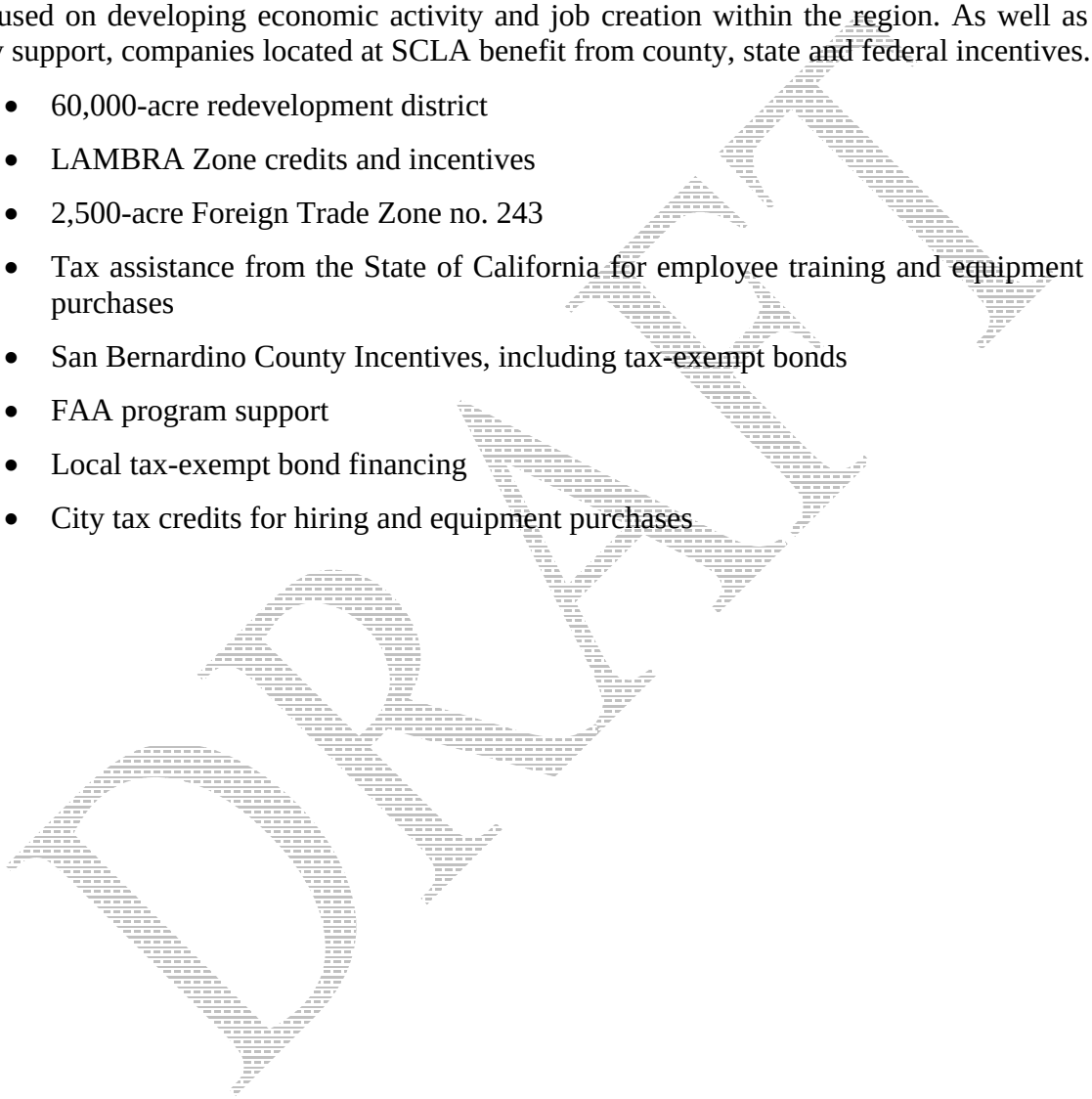
- Wal-Mart

Commercial air cargo carriers have included Cargolux, FedEx Express, ASB Air, Atlas Air, and MK International.

Incentives

Acting as the Airport and Rail Complex Authority for SCLA, the Victorville City Council is focused on developing economic activity and job creation within the region. As well as strong city support, companies located at SCLA benefit from county, state and federal incentives.

- 60,000-acre redevelopment district
- LAMBRA Zone credits and incentives
- 2,500-acre Foreign Trade Zone no. 243
- Tax assistance from the State of California for employee training and equipment purchases
- San Bernardino County Incentives, including tax-exempt bonds
- FAA program support
- Local tax-exempt bond financing
- City tax credits for hiring and equipment purchases



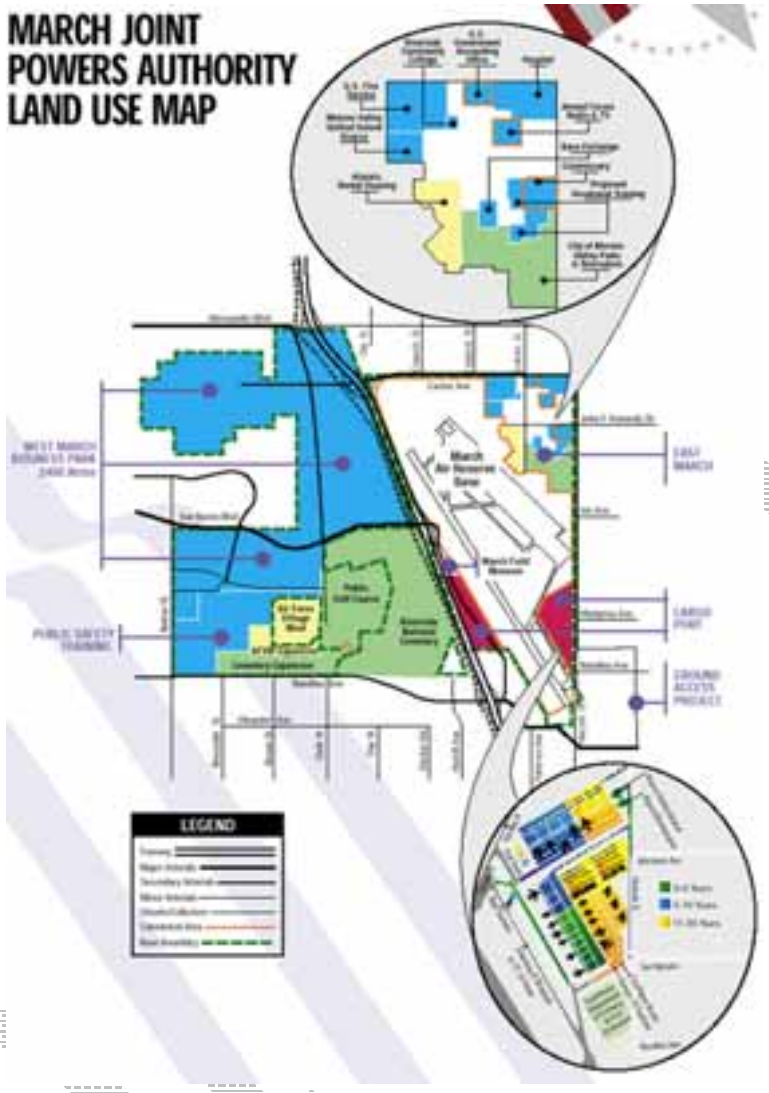
18. March GlobalPort

Overview

March is a 350-acre "joint-use airport" governed by the Air Force and the March Joint Powers Authority. March Inland Port Airport Authority (MIPAA) was formed by the March JPA in 1996 to develop the civilian airport and related business. The Authority's marketing partner is the Lynxs Group. Lynxs was chosen in 1996 and formed March Inland CargoPort Development, LLC to convert and market the base. March also formed a California Redevelopment Agency and project area to assist with development.

The marketing focus is on airfreight and air industry support businesses. The Base Reuse Plan (Exhibit 45) designates approximately 350 acres of land for civilian aviation facilities at the southern end of the airfield at March. An additional 200 acres west of the I-215 freeway. This acreage is intended to be used for commercial aviation through a military/civilian joint-use arrangement. March does not have any distinct "inland port" functions beyond those of a logistics airport, although it does have a rail connection.

Exhibit 45: March GlobalPort



Competition

As Exhibit 46 shows, the SCLA, March, and San Bernardino logistics airports are all in the same general market and share that market with Ontario International, an established airport with extensive service.

Exhibit 46: Inland Empire Cargo Airports

19. Global TransPark

Overview

In 1991 the North Carolina General Assembly created the North Carolina Cargo Airport Authority (now the North Carolina Global TransPark Authority) to develop an air cargo industrial complex. This concept was based on an expectation that the next future wave of industrial development will be driven by just-in-time manufacturing and distribution. Flexibility and speed are expected to become the critical competitive factors driving industrial development. As a result, an integrated air cargo airport/industrial complex was believed to offer a competitive advantage in attracting new industry; and generating jobs and economic benefits for the region it serves.

In 1992 the Global TransPark Authority (GTPA) selected Kinston, NC, as the site for the Global TransPark (GTP). Kinston is located about 70 miles southeast of Raleigh, with reasonable access to interstate highways I-95 and I-40 as well as the North Carolina ports of Wilmington and Morehead City (Exhibit 47).

Exhibit 47: Global TransPark and Southeastern NC

The current master plan provides for a 15,300-acre development. Improved highway access to I-95 and I-40 was to be built. The plan also included a rail intermodal terminal with connections to CSX and Norfolk Southern which would enable rail intermodal service to the ports of Wilmington and Morehead City. Industrial areas were planned to locate industries with high air transport demand close to the runway and those with a higher reliance on surface transport on the

periphery. The Master Plan projected about 23,000 cargo flights carrying 696,000 tons of cargo by 2014.

Global TransPark Development

GTPA has advanced the development of Global TransPark at the former Kinston Regional Airport over the last 13 years. Over that time about $150 million in State, Federal, and private sector funds have been received for development. Exhibit 48 shows the current site plan for GTP development. The areas in blue denote GTP property.

Exhibit 48: Current Global TransPark Site Plan

Following are a number of major development events at TransPark:

- May 1996 – TransPark approved as Foreign Trade Zone
- August 1996 – Mountain Air Cargo opens new facility as TransPark's first tenant
- March 2000 - Construction of 32,000 sq. ft. education and training center completed
- December 2002 – Runway extension to 11,500 feet opened enabling Boeing 747-400 air freighters to utilize TransPark
- May 2002 – 58,200 sq. ft. air cargo facility opened with three tenants

- April 2003 – Duke Realty selected as developer for industrial component of TransPark

- June 2005 – New Breed, Inc. leases 120,000 sq. ft. distribution warehouse. This is the largest transaction completed by GTPA.

Currently GTP supports 27 employers in its initial development area and has over 5,700 acres fully permitted and available for development. These companies are providing 2,600 jobs with over $65 million of payroll and benefits.

Global TransPark Financial Issues

Although GTP has modest success, it has fallen far short of its original forecasts and expectations with respect to its ability to attract air cargo operations. Even with the progress that has been made, GTPA is not self-sufficient and requires ongoing subsidy to fund its current operations. In its fiscal year ending June 30, 2005, GTPA received only $690,000 in operating revenue and experienced an operating loss of $3.2 million. Even with a State funding subsidy of $1.6 million GTPA experienced negative cash flow of over $300,000. As a result, public support for continued funding is eroding as evidenced by the reduction of State subsidy from $3.4 million to $1.6 million in 2003. In addition, the State legislature has ordered studies to determine ways to improve operations and/or restructure the organization.

It does not appear feasible to discontinue operations of GTPA. There is outstanding debt of $32 million, most of which is held by the State. Another concern is that if GTPA discontinues operations the FAA may require payback of $20.1 million in grants. Now that the funds have been invested it appears that the only option available to the State is to continue supporting the operation and increase efforts to turn it around.

Tenants

Existing GTP tenants are primarily aircraft-related businesses (e.g. flight training, aircraft charter) or state agencies (e.g. Highway Patrol, Forestry, Economic Development). There are few firms engaged in moving, shipping, or receiving air cargo.

Global TransPark tenants include:

- ASA Delta Connection - Commercial jet service
- Aero Contractors - Aircraft charter
- Henley Aviation - Flight Training Center
- Longistics - Foreign-Trade Zone Operator
- MJE Telestructure - Plant infrastructure
- Mountain Air Cargo - Full A&P contract air service
- N.C. Emergency Management - Eastern Branch
- N.C. Forestry Service - Eastern Branch
- N.C. Highway Patrol - Eastern Aviation Unit

- New Breed, Inc. - Logistics and supply chain management
- North Carolina's Eastern Region - Economic development
- Segrave Aviation - FBO, Charter service, trucking
- Workhorse Aviation Manufacturing - Military support plant

Funding

The act creating the North Carolina Global TransPark Authority authorizes the financing of projects that may be available for use by private parties by the issuance of bonds and notes by the Authority. Under federal tax laws, the general rule is that interest on bonds issued to finance facilities used by private parties will not be tax-exempt. However, there are exceptions to this general tax rule for facilities that qualify as "exempt facilities," such as certain airport facilities, and for manufacturing facilities, if the facilities and their user meet the requirements for "small issue" industrial revenue bonds. The Authority can also issue bonds on a federal taxable interest basis, the interest on which bonds, however, would be exempt from North Carolina income tax.

The Authority may issue bonds and notes ("obligations") (1) to provide airport projects and (2) special user projects. The obligations will constitute special limited obligations of the Authority, payable solely from Authority revenues; income on assets specifically assigned or pledged for the payment thereof; or from the funds, collateral and undertakings of a private party that are assigned or pledged by that party for the payment thereof.

The Global TransPark statute's definition of "airport projects" authorizes the financing by the Authority of land, building and structures at the TransPark, including facilities to be leased to one or more private parties.

The Act defines special user projects to mean any land, equipment, buildings or other structures located at the TransPark and the addition to or rehabilitation, improvement, renovation or enlargement of an existing structure. The special user project must be used as, or in connection with,:

- (a) an undertaking for industry, including an industrial or manufacturing factory, mill, assembly plant or fabricating plant, a freight terminal, an industrial research, development or laboratory facility, or an industrial processing or distribution facility for industrial or manufactured products; or
- (b) a commercial, processing, mining, transportation, distribution, storage, marine, aviation, or environmental facility or improvement; or
- (c) any combination of the above items.

Lessons Learned

The Global TransPark experience is an excellent example of the importance of location and markets in development of new airport facilities and industrial parks. The region surrounding Kinston does not appear to have enough economic growth to absorb the projected industrial development. There are no major population centers to support the market for a major cargo

airport or passenger operations. As a result, the available market served by GTP cannot sustain the size of the facility investment. Exhibit 49 shows the market region through drive-time zones surrounding GTP. Access to markets and interstate highways is not particularly good and does not appear to provide competitive advantage to the Kinston location.

Exhibit 49: Global TransPark Market Reach

GTP is almost totally dependent on the air cargo operation to attract development. Although GTP advertises close proximity to the deep-water ports of Wilmington and Morehead City, these ports are very small niche ports and do not have the import-export container business needed to drive container-oriented distribution. The ports of Norfolk, Charleston and Savannah are the east coast ports that are handling most of the Southeast Atlantic container business. As a result, GTP has no competitive advantage to these ports in attracting Atlantic container cargo.

GTP also makes reference to rail access to CSX and Norfolk Southern. Kinston is not on the main lines of either of these two rail carriers and is very doubtful that GTP will be able to justify development of an intermodal terminal. With no rail intermodal service, the Kinston location suffers another competitive disability for attracting logistics-oriented development.

Although the concept of a global air cargo industrial complex was certainly a creative and forward thinking idea in 1991, it does not appear that the site location selected for GTP had sufficient market and location advantage to support the investment made. This makes it necessary for GTP to rely entirely on its air cargo capability and regional market to provide the needed industrial development. It may only be a matter of time and increased marketing effort to bring GTP to a position of financial self-sufficiency.

20. NY/NJ Port Inland Distribution Network

Overview

The Comprehensive Port Improvement Plan (CPIP) is a strategic plan for the future development of the Port of New York and New Jersey (PANYNJ). The CPIP evolved from a U.S. Army Corps of Engineers Harbor Navigation Study, completed in December of 1999.

As logistics and distribution activities are a major economic driver of the New York Metropolitan regional economy, the PANYNJ seeks to maintain and expand Port market share in the very competitive Atlantic port marketplace.[i] Over the past five years for which data is available (2000-2004) the PANYNJ's container business has grown much faster than its major port competitors, Montreal and Norfolk. The ports of Baltimore and Halifax have smaller container operations and are not strong competitors to the Port of New York and New Jersey. The ports in Boston, Wilmington and Philadelphia are considered niche ports with very specialized container operations.

The Port has five major marine container terminals at Newark, Elizabeth, Global Marine (not a PANYNJ terminal), Howland Hook, and Red Hook. Land-side access is critical for future port development. ExpressRail on-dock volume is climbing rapidly from 50,000 annual container lifts 10 years ago to 227,000 lifts last year. About 75% to 80% of all rail business is ExpressRail and rail has steadily gained at the expense of truck. Projected rail growth is 1 million rail lifts by 2020 and 2 million by 2040. The basic reasons for rail growth are increasing demand for rail transport, the PIDN program, overall growth in the port business and rail's increasing role in port growth.

While there are major environmental aspects of CPIP, the major logistics-infrastructure components of the current plan include:

- deepening major shipping channels
- expanding and modernizing cargo handling equipment
- developing inland distribution centers (Inland Ports-PIDN)
- expanding rail infrastructure

The latter two aspects are the subject of this report.

Port Inland Distribution Network (PIDN)

In the study which justified the dredging of New York Harbor to commercially relevant depths, it was recognized that the existing highway infrastructure would not be able to meet the increased demand associated with dredging. Without a shift away from the highway mode, the PANYNJ

[i] A January 2006 PA pamphlet reports, "The port directly and indirectly supports 230,000 diverse and highly skilled jobs within the two states of New York and New Jersey and generates $9.4 billion a year in personal income."

would not be able to maintain its Atlantic port market share in general and specifically, its share of cargo unloaded at the Port of New York and New Jersey destined to inland markets.

PIDN is a program to maximize the productive capacity of the terminals in an environmentally sustainable manner. The PANYNJ developed the PIDN concept two to three years ago. As it considered the flow of container traffic, it saw clusters of inland origins and destinations. A number of clusters were centered around port and freight rail facilities. There are nine locations in six states, well beyond a 25-mile radius (Exhibit 50). Five sites have potential for barge access: Albany, Providence, New Haven or Bridgeport in Connecticut, the Port of Camden, and the Port of Wilmington. Others, including Buffalo, Syracuse and Rochester, are rail destinations. The mode split in 2001 in terms of container transport from and to the terminals was 84% truck, 2% barge and 14% rail. The forecast for 2020 is 57%, 23% and 20%, respectively, truck, rail and barge. Reducing truck VMT and congestion will reduce the need for $300 million in new highway capacity in the region. This program will reduce NOx by 200 tons and fuel consumption by 30 million gallons per year. The Port needs this inland port system since there is not enough land for sufficient terminal expansion. The environmental benefits to the States are substantial since this program will eliminate almost 800,000 truck trips and 50 million vehicular miles by 2020.

Exhibit 50: Port Inland Distribution Network

The PANYNJ would also benefit in that greater use of barges and rail will increase terminal productivity by 20%. It will reduce the time that containers sit on the dock. Containers that will move by barge or rail will sit one to two days vs. five to six days for truck transport. This will result in a deferral of future investments in container terminals, saving $20 million, with increased revenues from existing terminals of $15 million over the next 20 years.

The PANYNJ expresses the PIDN goal as follows:

"The PIDN program aims to lower inland distribution costs; reduce truck trips (vehicle miles traveled); improve air quality; save energy through reduced truck fuel use; increase port throughput capacity and spur economic development at feeder ports and hinterlands by providing new port platforms for value-added warehousing and distribution opportunities."

The Port Inland Distribution Network (PIDN) was therefore conceived to move non-New York metropolitan area freight handled in the Port of New York and New Jersey directly to inland hubs using non-highway modes. Under this plan the non-New York metropolitan area freight would not utilize the local highway network, reserving this capacity for the growth of local highway traffic.

Regional Port-Related Rail Capacity Improvements

The PANYNJ estimates that about 13 percent of its current marine cargo volume is transported off the port by rail. The stated goal is to increase rail handling to as much as 30 percent of the future total cargo volume. A barrier to this growth is that the rail capacity to handle it is limited. To overcome this barrier, the PANYNJ is currently investing $600 million in a comprehensive rail program to increase rail capacity for handling planned growth.

The $600 million rail program is a multi-year effort with the goal of ensuring that each container port in NJ and Staten Island has supporting intermodal rail infrastructure. The projects have included the development of three new intermodal terminals, rail support yards, and rail connectors.

ExpressRail

The initial ExpressRail on-dock intermodal terminal (Exhibit 51) was introduced in 1991. Volume has grown from 35,000 containers in 1991 to 303,000 containers in 2005. This volume increase results in a compounded growth rate of over 16% per year for more than a decade. The PANYNJ is developing an on-dock rail system and intermodal terminals to serve all of the Port's major marine container terminals.

Exhibit 51: PANYNJ ExpressRail Projects

Rail Access

PANYNJ and the major railroads serving the port, CSX and Norfolk Southern (NS), have been investing in increased capacity of the rail network in and around the port (Exhibit 52). Projects include double tracking the lines in New Jersey that access the port. This includes the Lehigh Line to the west and the Chemical Coast Line to the south. Of particular significance is a complex set of projects that add rail capacity in the immediate vicinity of the Port's major container terminals, Port Elizabeth and Port Newark.

Exhibit 52: Regional Rail Projects

The Lehigh Line double-tracking project has encountered significant local opposition. This opposition is difficult to understand because the project is straightforward and has little impact on the community. The line was double-tracked in the past and this project simply returns the line to its original condition. The Lehigh Line is a very active rail line and now is congested to the point that trains back up, creating a nuisance for the neighborhood. This congestion will be eliminated by the double track project. Unfortunately, the project has become a local political issue that, for a time, threatened to stop all New Jersey state rail investment.

Staten Island Railroad

There is a PA/EDC partnership to revitalize freight rail to Staten Island. This effort will involve the construction of a new terminal, with the Arlington Yard providing support facilities. The PANYNJ has acquired the property for the connector to the existing Conrail Chemical Coast line.

New York City Economic Development Corporation (EDC) and PANYNJ are working together to restore rail freight service between Staten Island and connections to CSX and NS rail networks in NJ. The project includes reactivating the Arthur Kill Lift Bridge (longest lift bridge in the world) after being out of service and mothballed for decades. The project will also rebuild the rail infrastructure on Staten Island, and develop an on-dock rail intermodal terminal at Howland Hook.

The new eight-track rail facility at the Elizabeth Marine Terminal opened in October 2004. The new terminal capacity in Elizabeth and Newark filled so rapidly that it overwhelmed the support yard and track capacity. As a result, last year the PANYNJ chose to complete several critical elements of its rail program at the Port Newark and Elizabeth-Port Authority Marine terminals

up to two years sooner than previously projected, satisfying a request made by New Jersey Acting Governor Codey.

The Board previously authorized approximately $310 million for the port rail program. The Board authorized an additional $141 million for the project, which will allow for completion of three new components of the program. They are:

- Final design and construction of a second lead track to ExpressRail Elizabeth;
- Completion of ExpressRail Elizabeth's on-dock rail terminal, which will ultimately have 18 tracks;
- Construction of the ExpressRail Corbin Street rail support facility to provide capacity for staging, arrival and departure of two-mile-long trains, and integrate rail traffic from the three on-dock ExpressRail facilities;
- This work, which will be completed between 2007 and 2009, will complement and support previously authorized projects for on-dock rail terminals at the Howland Hook Container Terminal on Staten Island, Port Newark, and the Elizabeth-Marine Terminal.

Completion of this work will allow approximately 1 million containers a year to be handled by rail through these facilities.

In addition to the Elizabeth rail facility, the PANYNJ is actively working to install a rail terminal at the Howland Hook Marine Terminal, which will open in 2006.

Major rail projects for the PANYNJ include the Elizabeth Corbin Street grade crossing. The PANYNJ is constructing a grade crossing via the McLester Street realignment, compressing the roadway and constructing a rail bridge. The PANYNJ is planning a new ExpressRail facility with five to six times the amount of track, and capacity to handle one million lifts per year. Last fall PANYNJ opened a second dedicated rail terminal for Port Newark. Both of these projects are now completed.

On the New Jersey side the PANYNJ has been meeting with the railroads to increase the use of freight rail. Phase 1 includes a list of improvements to be financed with $25 million from the PANYNJ and $25 million from the railroads. The projects are aimed at furthering competitive rail service to the NY/NJ region. This includes a second track along the Chemical Coast line and a second track along portions of the Lehigh line from Bound Brook to PN/EMT and other major yards in north Jersey. It appears the work is going to move forward, though slower than anticipated.

On the NY side, the PANYNJ's $25 million along with NYSDOT's $15 million are being invested to accommodate heavier cars, improve clearances, and reduce conflicts with passenger rail service.

Lessons Learned

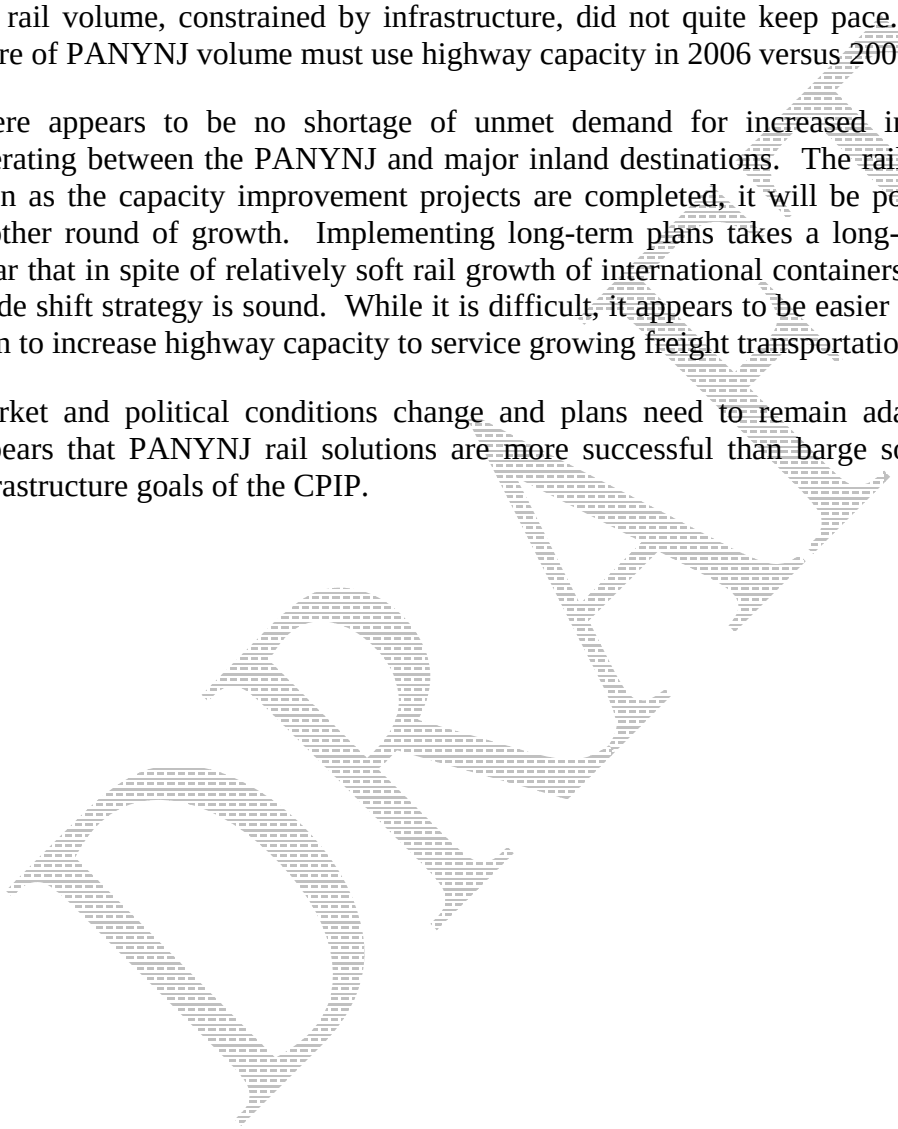
After several years of experience it is clear that some aspects of the PIDN and CPIP have been more successful than others. Demand for increased Atlantic Port capacity in general, and

PANYNJ port capacity in particular has continued to be very strong as expected. NS has continued its rail service to Pittsburg. CSX successfully implemented the rail shuttle to New England over its Worcester, MA, terminal and is planning a new service to Buffalo, NY. The barge service between New York and Boston continues to operate. However, after a multi-year experiment, the initial PIDN barge service to Albany was discontinued after its operating subsidy ran out.

Last year container volume in the Port of New York and New Jersey grew by 7.6% overall and the rail volume, constrained by infrastructure, did not quite keep pace. As a result, a greater share of PANYNJ volume must use highway capacity in 2006 versus 2005.

There appears to be no shortage of unmet demand for increased intermodal rail services operating between the PANYNJ and major inland destinations. The railroads anticipate that as soon as the capacity improvement projects are completed, it will be possible to accommodate another round of growth. Implementing long-term plans takes a long-term perspective. It is clear that in spite of relatively soft rail growth of international containers in 2005, the long-term mode shift strategy is sound. While it is difficult, it appears to be easier to increase rail capacity than to increase highway capacity to service growing freight transportation demand.

Market and political conditions change and plans need to remain adaptable. At present, it appears that PANYNJ rail solutions are more successful than barge solutions in meeting the infrastructure goals of the CPIP.



21. Heartland Corridor

Overview

The Heartland Corridor is a series of intermodal projects designed to improve freight mobility and rail intermodal capacity along the Norfolk Southern (NS) rail line between the Port of Virginia and Columbus, Ohio (Exhibit 53). This line serves the marine terminals at Norfolk and Portsmouth and runs through southern Virginia and southern West Virginia to Columbus, Ohio. NS routes continue beyond Columbus to serve other Midwest markets including Chicago and connections with western rail carriers at Chicago. The projects will enable double-stack train operations on the route, improve rail access to developing marine terminals in Portsmouth, and increase intermodal terminal capacity along the route with new terminals in Columbus, Roanoke, Virginia, and Prichard, West Virginia.

Exhibit 53: Heartland Corridor

Heartland Corridor Projects

Two of the largest inland rail intermodal markets for the Port of Virginia are Chicago and Columbus. NS currently operates its doublestack trains to Chicago via a circuitous route through Harrisburg, PA. The present route is 1264 miles while the Heartland corridor route is 1031 miles (Exhibit 54). However, the Heartland corridor route does not have the 20'3" vertical clearance necessary to operate double-stack container trains. There are 28 tunnels between Roanoke and Columbus which require modification to enable double-stack train operations on this route. The project to clear these tunnels is the most significant project of the Heartland Corridor with an estimated cost of $130 million. Once the clearance project has been completed, NS will be able to operate its Norfolk-Chicago double-stack trains on the Heartland Corridor route. This will save 233 miles relative to the route over Harrisburg and improve transit time to Chicago by about

one day. Since Columbus will be on the route of the Chicago trains, double-stack service to Columbus will be significantly improved as well.

Exhibit 54: Heartland Corridor Projects

Portsmouth Rail Project

There are two new marine terminals being developed in Portsmouth. The first is being developed by APM Terminals, a subsidiary of AP Moller Company which owns Maersk SeaLand. The APM terminal is under construction and is scheduled to begin operation in 2007. The second marine terminal is being developed by the Virginia Port Authority on Craney Island just north of the APM terminal. The Craney Island terminal is planned to begin operation in 2017. Both of these terminals will be served by the Commonwealth Railway, a short line that operates from Suffolk to Portsmouth. The Commonwealth Railway will connect with NS and CSX at Suffolk to bring NS and CSX container trains to the APM and Craney Island marine terminals. On its existing route, the Commonwealth Railway must operate its trains through the cities of Chesapeake and Portsmouth to reach the APM terminal and future Craney Island terminal. This route passes through 14 at-grade street crossings creating the potential for significant conflict with local street traffic as train operations increase to serve the marine terminals.

Exhibit 55: Portsmouth Rail Projects

Exhibit 56: Western Freeway Rail Corridor

The Western Freeway Rail Corridor project (Exhibit 56) will relocate the Commonwealth Railway line to the median of highway routes I-664 and Route 164 eliminating the at-grade rail crossings. This will improve the safety of the rail operation and enable faster train speeds for rail service to the marine terminals. The Rail Corridor was planned in the 1980's when Route 164 was built. All of the bridges that cross Route 164 were built to accommodate two rail lines with sufficient clearance to allow double stack train operations. The Western Freeway project is estimated to cost $60 million.

Columbus Terminal Expansion

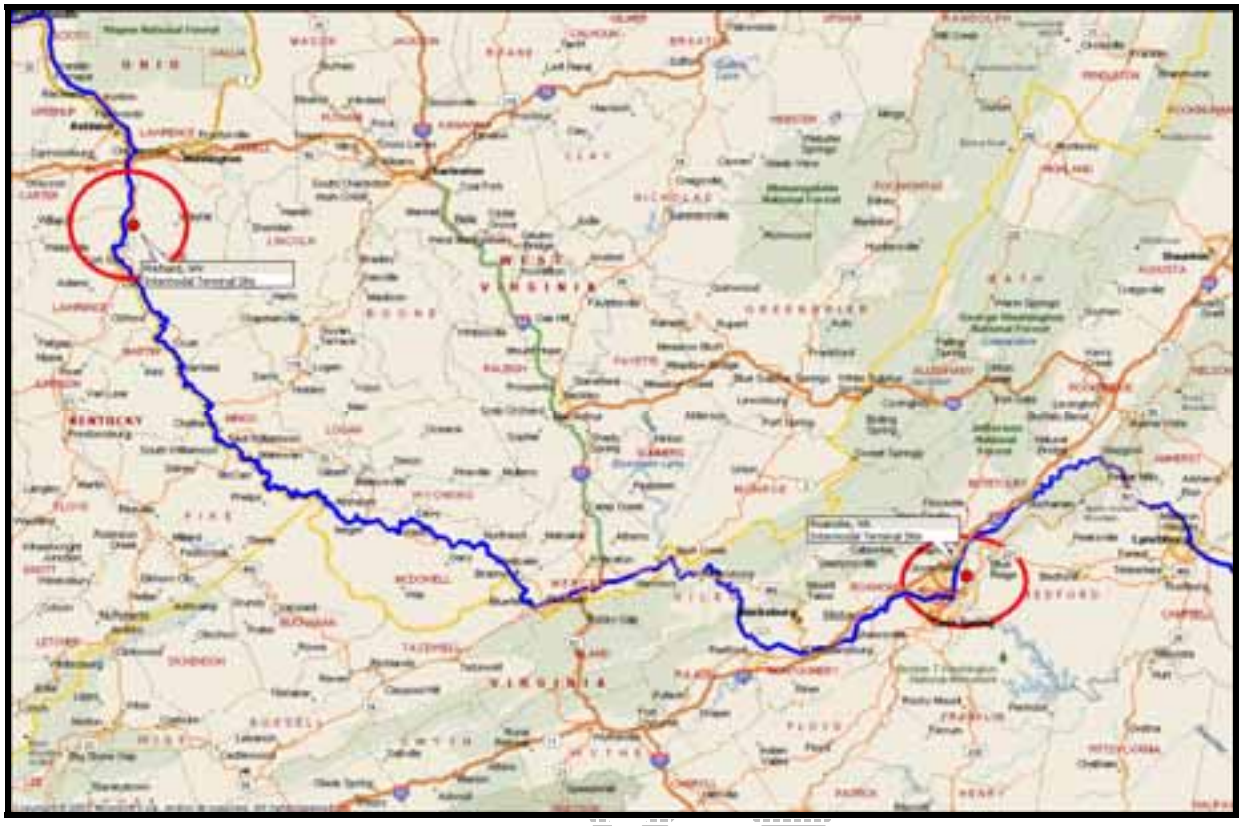
The present NS terminal at Columbus, Discovery Park, is currently operating well beyond its design capacity of 125,000 lifts. Columbus is a growing logistics and distribution hub driving the need for additional terminal capacity. An NS forecast projects over 240,000 lifts by 2015. NS has been working with the Columbus Regional Airport Authority (CRAA) to build a new intermodal terminal on a site of 275 to 300 acres located adjacent to the Rickenbacker Airport.

The initial capacity of this facility will be 250,000 lifts with the ability to expand to 400,000 lifts. This project is a part of the Heartland Corridor and is estimated to cost about $60 million. The NS terminal will be an attractive feature of the adjacent Rickenbacker Industrial Park where 1000 acres of additional development are being planned.

Roanoke, VA and Prichard, WV Intermodal Terminals:

Once the rail lines are cleared for double-stack train operations and NS is operating trains to Columbus and Chicago on the Heartland Corridor, the regions of Virginia and West Virginia can be opened to intermodal rail service. New intermodal terminals will be required for this service. The base load volume density needed to establish regular intermodal service will initially come from the Port of Virginia, Columbus and Chicago markets enabling the smaller markets at Roanoke and Prichard to included in the NS service with much less volume. Small intermodal terminals have been planned at Roanoke and Prichard as a part of the Heartland Corridor (Exhibit 57). The terminal at Roanoke will connect I-81 and I-64 to the Heartland Corridor. The terminals at Roanoke and Prichard will give the Roanoke Valley region of southeastern Virginia, and southwest West Virginia rail access to the Port of Virginia, Chicago and western markets over Chicago. The initial terminals are expected to be able to handle 15,000 to 20,000 lifts. The estimated cost of each terminal is about $8 million.

Exhibit 57: Roanoke and Prichard Terminals



Funding

The Heartland Corridor projects are estimated to cost $266 million and take five years to complete. Over $200 million of this amount will be for clearance projects and intermodal terminals on NS, which is more than can be justified based on private sector benefits alone.

While the Heartland Corridor Project will provide benefits to a broad spectrum of public and private stakeholders, it appears that the primary beneficiaries will be NS and the Port of Virginia. A cleared route from Norfolk to Columbus will improve the NS competitive position to Midwest markets and western markets over Chicago. The Port of Virginia will benefit by having improved double-stack rail access to its major interior markets. As Asian container imports continue to grow, ocean carriers are moving more cargo via all water services to the east coast, creating growth opportunities for east coast ports. The Port of Virginia, with its deep-water channels, its new APM marine terminal and long-term plan for marine terminal capacity at Craney Island is well positioned to take advantage of this growth opportunity. The improved rail access provided by the Heartland Corridor will provide strategic advantage for the Port as it competes for Midwest cargo.

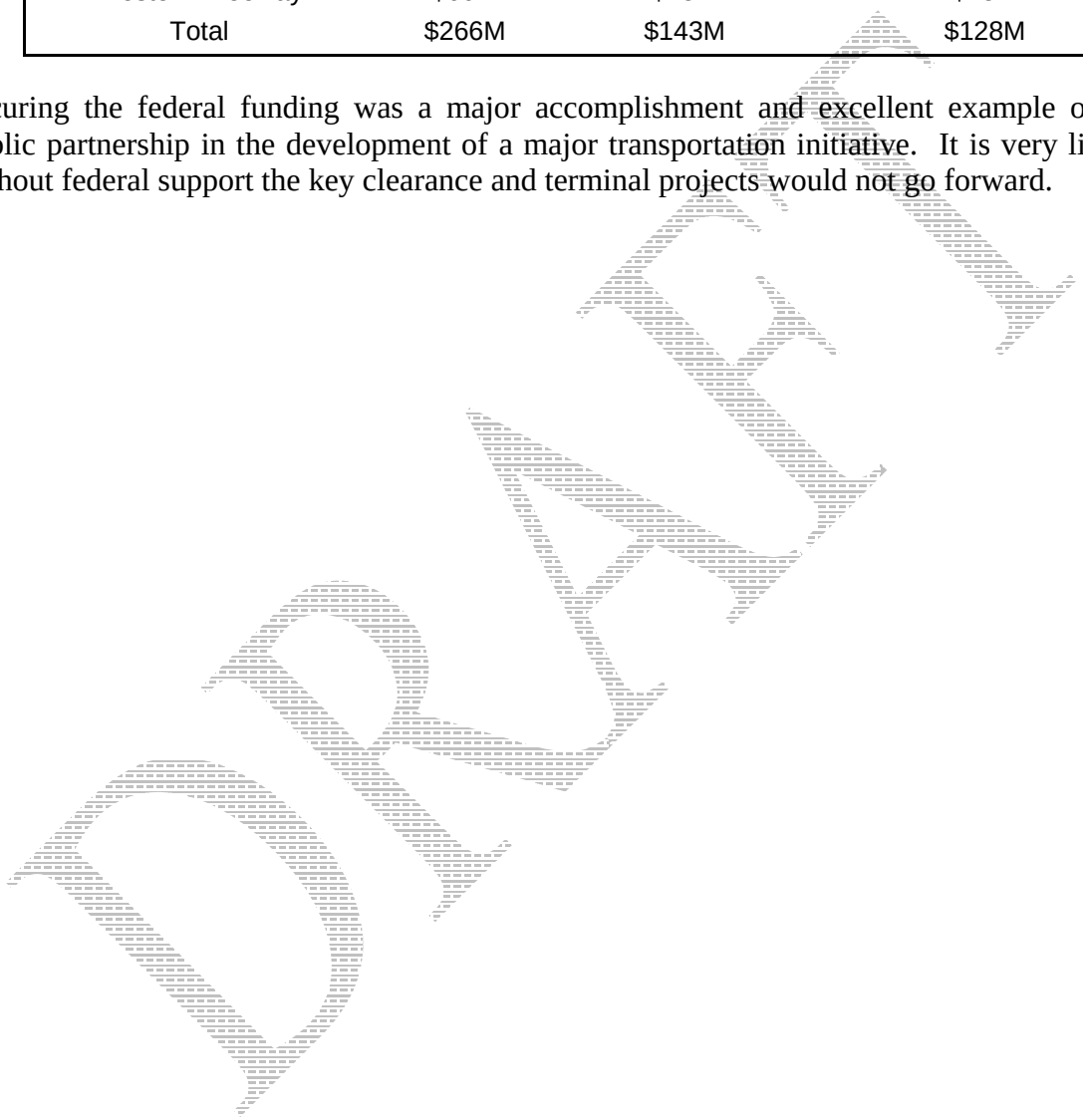
As the key beneficiaries of the Heartland Corridor, NS and the Port of Virginia worked very closely together to develop support for public funding for these projects. NS and the Port of Virginia have a long-standing relationship in development of intermodal services for the Port. As a result of their work, local and congressional support from all three states was developed

enabling $143 million in federal funding earmarks in the federal transportation bill which passed in July, 2005. Exhibit 58 is a summary of project funding.

Exhibit 58: Heartland Corridor Funding

Project	Total Cost	Federal Funding	NS/State/Local funding
Double Stack Clearances	$130M	$95M	$35M
Intermodal Terminals	$76M	$33M	$43M
Western Freeway	$60M	$15M	$45M
Total	$266M	$143M	$128M

Securing the federal funding was a major accomplishment and excellent example of private public partnership in the development of a major transportation initiative. It is very likely that without federal support the key clearance and terminal projects would not go forward.



22. North American Inland Ports Network (NAIPN)

Overview

North American Inland Port Network (NAIPN) is a sub-committee of the North America's SuperCorridor Coalition (NASCO). North America's SuperCorridor Coalition, Inc., is a non-profit trade organization based in Dallas, Texas. It is a multi-national advocacy and lobbying group with the goal of promoting trade along a north-south corridor from Winnipeg to Mexico City via Kansas City and Dallas (Exhibit 59).

Exhibit 59: North America SuperCorridor

Key members of the NAIPN include:

- Hillwood's Alliance, Texas development
- KC SmartPort, an advocacy and lobbying organization that promotes the logistics industry in Kansas City including the proposed logistics park at Richards-Gebaur.
- The Port Authority of San Antonio's business park at Kelly Air Force Base, TX.
- Winnipeg Inland Port, a Manitoba group organized on the KC SmartPort model.

NAIPN advocates the interests of Inland Ports along the International Mid-Continent Trade and Transportation Corridor (IMCTTC).

NAPIN uses a University of Texas definition of an inland port as follows: "An Inland Port is a site located away from traditional land, air and coastal borders with the vision to facilitate and

process international trade through strategic investment in multi-modal transportation assets and by promoting value-added services as goods move through the supply chain."

The definition lends the University's name and an element of credibility that supports NAPIN's simple, direct and totally understandable goal of promotion of public and private investment in this trade lane.

NAPIN and Texas DOT's privatized TransTexas Corridor

Apart from the University of Texas inland port definition there is some synergy between SuperCorridor activities and the Texas DOT in the promotion of the Trans-Texas Corridor. Texas's largest trading partner is Mexico and the congested I-35 corridor is the key trade route. The TransTexas Corridor (Exhibit 60) is a planned 50 year transportation infrastructure improvement program with the following features:

- separate lanes for passenger vehicles and large trucks
- freight railways
- high-speed commuter railways
- infrastructure for utilities including water lines, oil and gas pipelines, and transmission lines for electricity, broadband and other telecommunications services

Plans call for TxDOT to oversee planning, construction and ongoing maintenance, with private vendors responsible for daily operations.

Exhibit 60: Trans-Texas Corridor

23. Albany, NY Barge Service

Overview

The Albany barge service was an initiative to move containers on barges from the Port of New York and New Jersey to the inland river Port of Albany.

Exhibit 61: Albany Express Barge

The Port of Albany carried out the market analysis and a financial pro forma was developed. Albany had to ensure that the necessary infrastructure and security systems would be in place before PANYNJ would agree to participate. Albany also had to guarantee funding for two years. PANYNJ put up $6 million to initiate barge services for five locations, one of which was Albany. For each feeder port, the PANYNJ would contribute $25 per container that moves by barge up to 40,000 containers. Later on the feeder ports would pay the PANYNJ $5 per container in excess of 25,000 containers transported in any calendar year. The PANYNJ provided $200,000 per inland port for marketing and start-up services. PANYNJ had CMAQ funds totaling $3.3 million for the Port of Albany for the first two years of service.

Parties and Roles

This project was an element of the Port Authority of New York and New Jersey's (PA) Port Inland Distribution Network (PIDN). The project was a two-year demonstration underwritten by the Port of Albany, Port Authority of New York and New Jersey, State of New York, and the Federal Government. The service was recently terminated as the funding which supported the operation was not renewed. The operator of the barge was Columbia Coastal, an east coast ocean barge operator.

Service

The service operated from Port Elizabeth, NJ to Albany, NY, approximately 140 miles up the Hudson River. The initiative provided a second day service twice a week between federal

marine terminals in Albany and marine terminals in the Port of New York and New Jersey. The barge competed with motor carriers using the parallel interstate highway, I-87.

Exhibit 62: Albany Barge Location

Lessons learned

The initial expectation was that ocean carriers and terminal operators would realize the economic and operational benefits of utilizing/supporting the barge service and its "free empty depot" in Albany. Ample opportunities were expected to match export loads with empty containers. Service could be priced competitively with trucks. Costs to provide service would be high but manageable. Growth would be steady and annual deficits would decline. A long-term source of operating assistance would be secured.

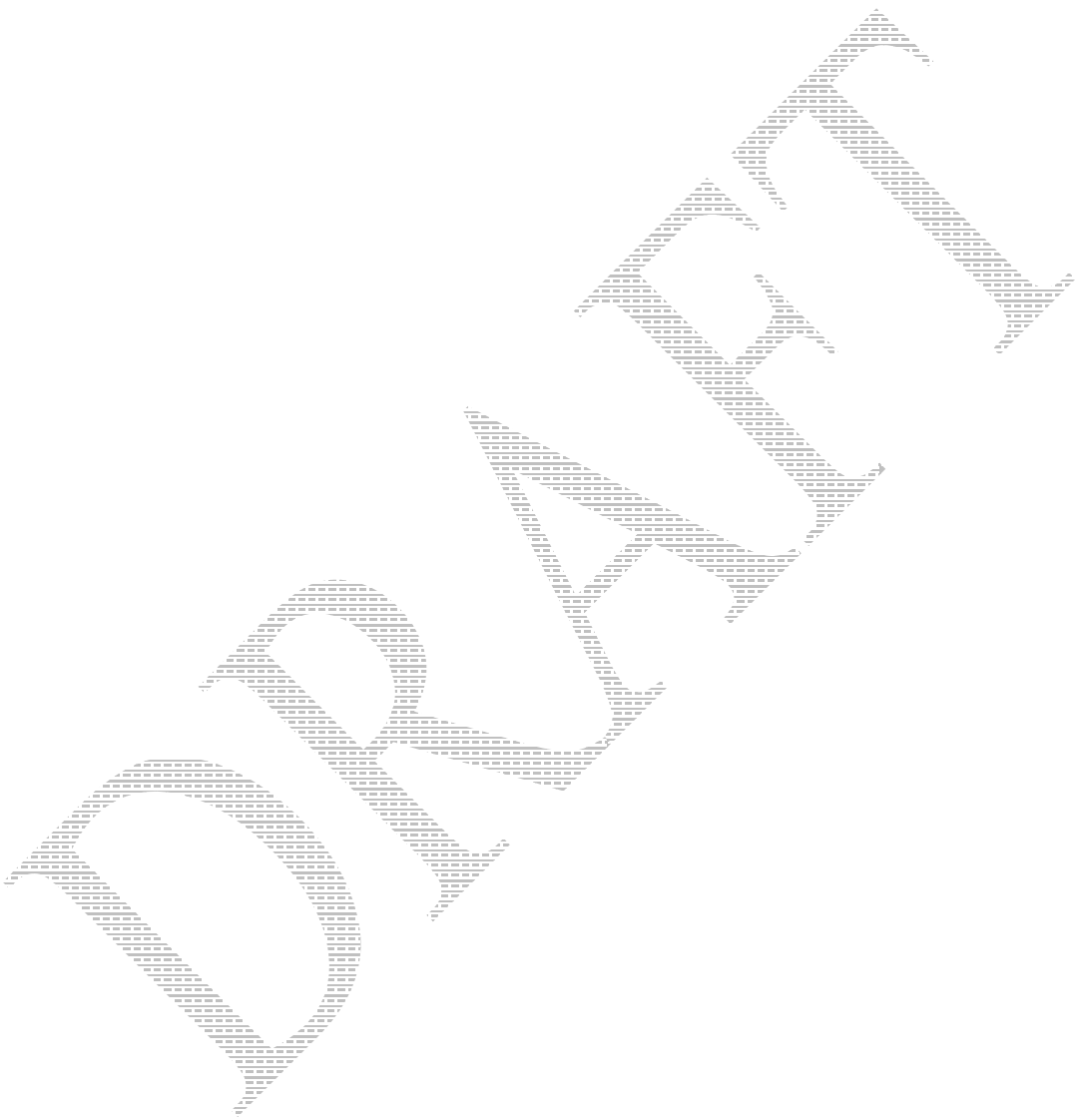
The actual operating experience was a much lower total volume and slower than anticipated growth. Total volume reached 540 loads and empties in mid 2004. All the loads were returned empty and little or no use was made of the Albany empty depot. Transportation costs were 50% - 75% greater than planned, primarily due to fuel surcharges. Unit stevedoring costs were 30% greater than planned due to low volumes and high premium payments for labor. Competitive motor carrier prices declined more than anticipated, putting additional financial pressure on the service.

While all of these reasons were important another major problem was the inability to attract major shippers and ocean carriers due to uncertainty of the barge's future. Shippers were unwilling to abandon suppliers unless the service was certain to be available for the long term. The critical nature of making a long term commitment is the same lesson identified by the Virginia Port Authority in the context of the Virginia Inland Port.

Beyond this the PANYNJ has identified the following lessons for PIDN Program:

- A significantly better understanding of program elements is necessary for success.
- Each service location has unique challenges and opportunities which should be well understood.
- The public policy objectives served by PIDN will become more pronounced over time.

- Re-activation of the Albany barge service could be warranted if long-term funding materializes or the business environment changes.



24. Worcester-Kearny Rail Shuttle

Overview

CSX Intermodal (CSXI) offers an intermodal service for marine containers moving between the Port of New York and New Jersey (PANYNJ) and New England markets. The rail service operates between CSXI's terminal in South Kearny, NJ and StackBridge, a privately owned terminal in Worcester, MA on the Providence and Worcester Railroad (P&W).

CSXI offers the transportation service to marine carriers. CSXI provides the train service and rail cars and the terminal at South Kearny (Exhibit 63). South Kearny is a former Conrail terminal that is now served by CSX and operated by CSXI.

Exhibit 63: South Kearny Terminal

The terminal in New England (Exhibit 64) is owned and operated by Intransit Container, Inc. (ICI), functioning as CSXI's terminal operator in Worcester. The primary function of these facilities is to receive Pacific Rim land bridge cargo moving via CSXI line haul rail service. ICI provides full marine container depot services and, through a subsidiary, provides nearby warehouse space and trucking service.

Exhibit 64: Intransit Container Terminal

The marine carriers are the customers of CSXI and ICI. The cargo largely remains in bond and clears Customs in MA. Some of the cargo moves on a marine bill of lading to Boston.

Notwithstanding the fact that this is a private sector transportation solution, the Port Authority of New York and New Jersey feature this service as a part of their Port Inland Distribution Network (PIDN).

Stackbridge (Exhibit 65) is located on the P&W railroad, a New England regional rail carrier which connects with CSX Transportation (CSX) at Worcester. The P&W interchanges cars and switches the Stackbridge terminal.

Exhibit 65: Stackbridge Intermodal Terminal

Service

South Kearny is located approximately 5 miles from the main container terminals in the Port of New York and New Jersey. Stackbridge is located 35–40 miles from downtown Boston and is well located to serve the New England market. Worcester is approximately 160 miles from South Kearny (Exhibit 66).

Exhibit 66: Rail Shuttle Route

Containers are drayed between PANYNJ marine terminals and South Kearny Intermodal Terminal. The cargo is moved in a block of cars added to westbound trains moving between Northern New Jersey and Selkirk (Albany), NY. The block is picked up by eastbound land bridge trains destined for Stackbridge and the Boston market. The cut off time at South Kearny is 1300 hrs. Monday, Tuesday and Thursday. Containers are available at StackBridge by 1500 hrs. the following day. The cargo is then drayed to destinations in New England.

The process is reversed to move containers from New England to PANYNJ. On the reverse move the cut time off is 1700 hrs. daily with availability at South Kearny at 0200 hrs. Thursday thru Monday. The minimum scheduled transit time is 57 hours; Saturday, Sunday and Monday departures are available Thursday morning, and Tuesday's departure is available early Friday morning.

Competition

The cargo could move by barge between PANYNJ and Boston or by motor carrier between PANYNJ and final destination.

Success Factors

The highways in the region I-84, I-91, and I-95 are highly congested and truck costs are relatively high. The barge service is weekly, limiting departure flexibility and transit time. In addition the Boston port location may result in increased drayage cost to many MA and RI customer locations. A key driver of the rail economics is the availability of existing train capacity enabling CSXI to view the business as incremental to existing trains. If there were no train capacity it is doubtful that this short haul business could justify new dedicated train starts.

25. Richards-Gebaur ITC development

Overview

Richards-Gebaur (Exhibit 67) was operated as an Army Air Force, Air Force, and Air Force Reserve base from 1941–1994. In 1976, the Air Force converted the base to reserve status and declared approximately 1,362 acres surplus. In August 1985, the property was given back to Kansas City, to be used as a public airport. Between 1986 and 1994, approximately $12.2 million in federal airport development funds were obtained for airport improvements. This funding was subject to the city's agreement that the airport would be available to the public for aeronautical use.

Exhibit 67: Richards-Gebaur Redevelopment Site

The airport consistently lost money on its air operations and was projected to continue to loose more than $1.5 million annually. In 1997, the city identified an opportunity to redevelop the airport land into an intermodal rail-truck freight distribution center and industrial park. To enable this redevelopment, Kansas City submitted an application to the FAA requesting permission to close the airport and be released from its previous federal aviation obligations and commitments. The next five years were spent in a series of court battles that were resolved in favor of the logistics redevelopment. Following this litigation, the Port Authority of Kansas City was charged with economic development of the former Air Force Base with the objective of creating an international trade-processing center.

In 2004, the Port Authority selected CenterPoint Properties to plan and manage the redevelopment project. CenterPoint is a major industrial real estate developer, headquartered in Chicago, with considerable experience in logistics park development. The Port Authority plan

provides for sale of the property to the master developer for diverse industrial uses, including distribution, light manufacturing and warehousing.

Services

The Kansas City Port Authority expects the Richards-Gebaur development to capitalize on Kansas City's position as the second largest rail hub and the third largest trucking hub in the country. In addition, Kansas City has more Foreign Trade Zone space than any other American city strengthening its position to compete for international trade. Kansas City is also well positioned for NAFTA trade having entered into agreements with Mexican and Canadian officials to take advantage of the major international North to South I-29 and I-35 trade corridors.

The Kansas Southern Railway (KCS) is expected to serve an intermodal terminal that will be built and financed by CenterPoint as a part of the development. This project will be similar in concept but somewhat smaller than the Joliet Arsenal redevelopment. The KCS has been pursuing business strategies seeking to capitalize on the synergies between the carrier's service area and NAFTA. In 2005, following a series of very complex international transactions, KCS acquired the controlling interest in TFM, the railway serving the key Mexico City-Laredo corridor. KCS, with its TFM acquisition, now provides single line service between Kansas City and Mexico City. In addition, KCS has developed a marketing alliance with the Canadian National railroad creating interline service routes to Canadian markets. These actions have positioned KCS to take advantage of the expected future growth of NAFTA trade.

ITPC Concept

Richards-Gebaur is being labeled an "International Freight Gateway" and positioned as the hub of an "Inland Trade Processing Center" or ITPC. ITPCs are intended by Customs to relieve pressure on congested border crossings and ports. It is unclear, however, whether an ITPC would serve as an effective anchor or attraction for logistics-based business development.

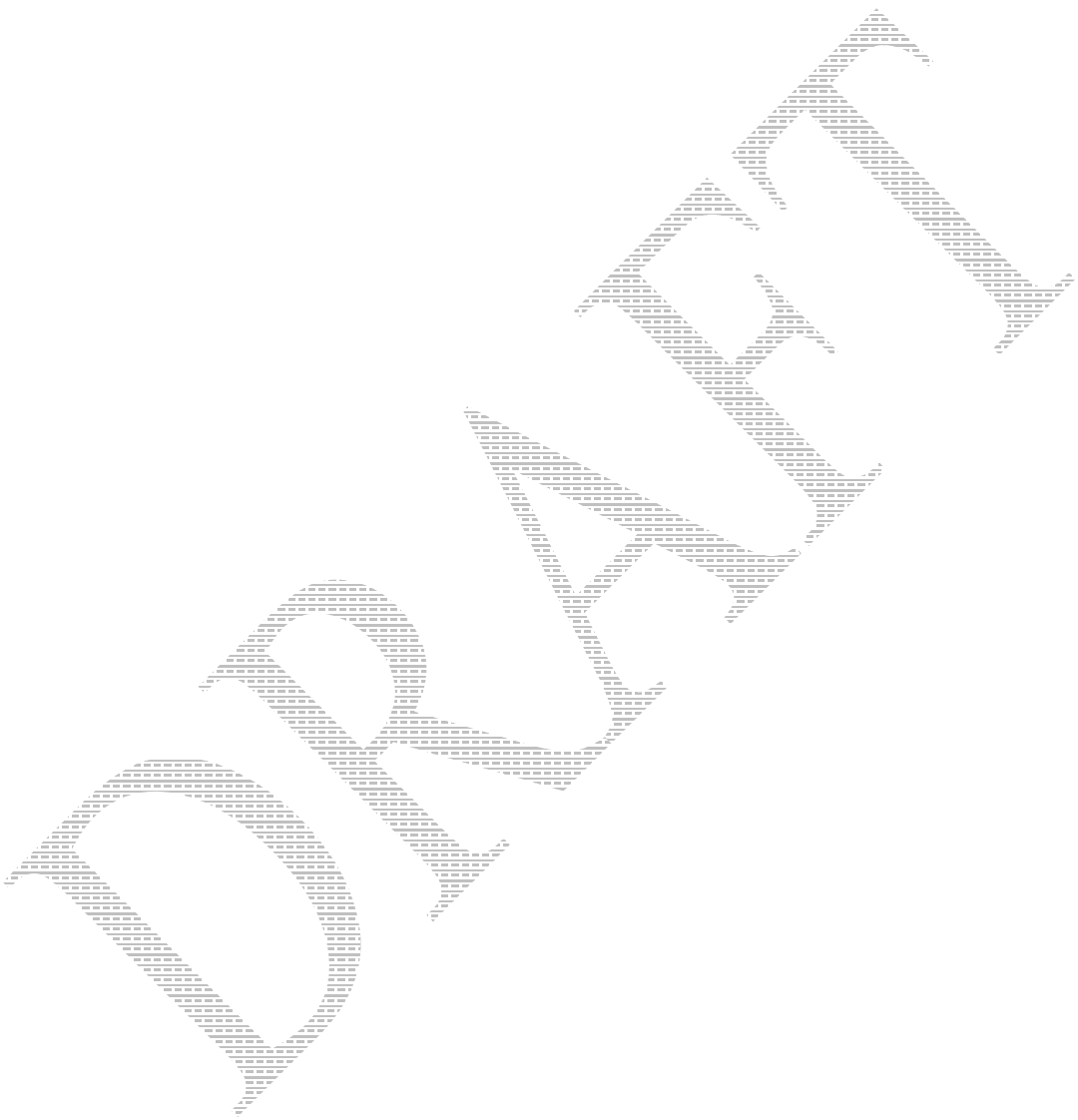
Project Status

CenterPoint does not yet have control of the Air Force Base property and it is actively engaged in resolving the administrative issues related to transfer of the property from the U.S. Government. These issues should be resolved in 2006 with groundbreaking expected in 2007.

Lessons Learned

Despite the best efforts of many willing partners working toward development of a logistics business park, this project has still taken more than a decade of effort, and groundbreaking has yet to occur. In many, if not most cases, the length of time required to resolve property acquisition, environmental, political and financing issues requires patience and staying power to finalize this type of development. Beyond the cost of the lost opportunities there is the general concern (perhaps not in this specific case) that by the time such a facility is finally built the market will have shifted resulting in significant loss of potential opportunity. A key lesson is

that the developer and development authority must have political support, a significant commitment and staying power to drive the project to conclusion.



26. Port of Battle Creek, MI

Overview

Fort Custer Industrial Park is the largest modern industrial park in Michigan. In 1972, Battle Creek Unlimited, Inc. was created as a private, nonprofit organization to conduct economic development activities for the city of Battle Creek. Owned by the City of Battle Creek, the planned industrial complex now is home to more than 90 companies.

The U.S. Customs Port of Battle Creek and Foreign Trade Zone #43 serves Southwest Michigan from a central location in Fort Custer Industrial Park.

Battle Creek Unlimited (BCU), with a total staff of 15 people, is a private, nonprofit corporation under contract with the City of Battle Creek for economic development activities. The efforts of BCU are focused primarily in Fort Custer Industrial Park, the downtown central business district, and W.K. Kellogg Airport.

- Site location assistance in Fort Custer Industrial Park, the downtown central business district including Renaissance Zone sites, the Aviation and e-Learning Smart Zone of Battle Creek, and W.K. Kellogg Airport
- Employee selection and training for new companies locating in Battle Creek
- Gap financing and equity investment
- Tax incentive assistance
- Project management before, during and after site selection

The City of Battle Creek has the flexibility to grant tax abatements. If a tax abatement is approved by the City of Battle Creek (with concurrence of the State Tax Commission), the majority of local property tax can be cut in half for up to 12 years. A tax abatement allows 50% reduction of local taxes assessed on the building and equipment.

BC/CAL/KAL Inland Port Development Corporation

The private, nonprofit organization that administers Foreign Trade Zone #43, and markets the inland port of entry in Battle Creek, is BC/CAL/KAL Inland Port Development Corporation. The primary activity of the Inland Port Development Corporation is promotion and management of the FTZ and associated sub-zones to the benefit of regional employers.

The U.S. Customs Port of Battle Creek is an inland port of entry. The U.S. Customs Port of Battle Creek is adjacent to W.K. Kellogg Airport, allowing for convenient clearances of aircraft arriving from international points of departure. The Port of Battle Creek is centrally located in the 3,000-acre Fort Custer Industrial Park, providing a convenient terminal to companies in the largest modern industrial park in Michigan. Located midway between Detroit and Chicago along the I-94 corridor, the U.S. Customs Port of Battle Creek has twenty-five years of service to the Southwest Michigan region. Two full-time U.S. Customs Service personnel serve the port of entry and W.K. Kellogg Airport.

27. Kingman International Trade Processing Center

Overview

The proposed Kingman International Trade Processing Center (ITPC) would include:

- A "major intermodal center"
- In-bond processing of rail and truck cargoes from West Coast ports, Canada, and Mexico
- Direct shipment and US/Mexican/Canadian Customs processing of rail/truck/air cargoes for forward distribution .

Despite the volume of rail and truck traffic passing through or near Kingman, it is unclear how such a facility might add value. Much of the discussion to date has focused on technologies such as RFID, GPS, and CVS/IVO, but these technology discussions have apparently not yet been translated into a value proposition for potential tenants or customers.

Exhibit 68: Kingman AZ Site

Through Cargo vs. Market Potential

Project backers have used maps such as that shown in Exhibit 69 and the data in Exhibit 70 to demonstrate that Kingman sits astride a major trade corridor. The volume of cargo passing through Kingman is undeniably very large. All imports moving form LA/LB through Kingman, however, have either cleared Customs already or are traveling in-bond to destination and have no need of "trade processing" in Kingman.

Exhibit 69: Trade Volume Map

Exhibit 70: LA/LB Port Rail Data

Alameda Corridor East Daily Rail Forecast

Alameda Corridor Daily Rail Traffic

YEAR	2003	2010	2025
Passenger	0	0	0
Freight	35	67	137
Total	35	67	137

BNSF Mainline East Daily Rail Traffic

YEAR	2003	2010	2025
Passenger	17	38	62
Freight	57	82	121
Total	74	120	183

UP Mainlines Daily Rail Traffic

YEAR	2003	2010	2025
Passenger	14	26	44
Freight	55	78	117
Total	69	104	161

Los-San Corridor Daily Rail Traffic

YEAR	2003	2010	2025
Passenger	55	69	100
Freight	5	6	9
Total	60	75	109

BNSF Mainline West Daily Rail Traffic

YEAR	2003	2010	2025
Passenger	40	76	106
Freight	50	74	112
Total	96	150	218

Joint UP & BNSF Daily Rail Traffic

YEAR	2003	2010	2025
Passenger	11	24	36
Freight	92	96	138
Total	103	120	174

Additional examples of points made in Kingman's favor include:

- *"Of the top ten intermodal trucking facilities in Arizona* [presumably LTL terminals as well as rail intermodal ramps]*, none are in Kingman.*
- *Kingman lies astride the N-S Canamex I-93 corridor, but economic focus is biased toward Phoenix/Tucson.*
- *The only major Arizona cargo airports are in Tucson and Phoenix"*

Although the Kingman promoters view these points as indications of an untapped potential, they might more pragmatically be viewed as evidence that little if any market exists for a Kingman facility. As Exhibit 71 indicates, Kingman is isolated from the major population centers of Arizona and California. There are no major cities within 100 miles of Kingman.

Exhibit 71: Arizona Population by County

Outlook

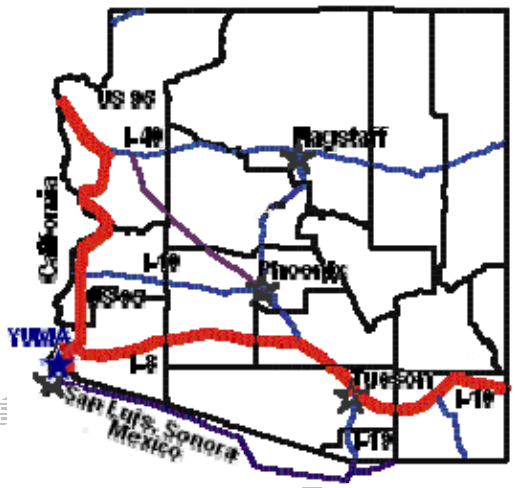
Advocates of the Kingman concept noted in one presentation that the project needed "economic foundation and commercial infrastructure compatible with anticipated growth". Those resources have not been forthcoming to date. City officials met with BNSF in early 2006, but no additional announcements have been made.

28. Greater Yuma Port Authority

Overview

The Yuma area is trying to build a new expanded port of entry on the border for truck traffic between Mexico and the U.S. The Greater Yuma Port Authority (GYPA) is the lead agency for building and planning a commercial border crossing just south of Yuma and east of San Luis (Exhibit 72). GYPA was established in 2000. GYPA used grant money to purchase 400 acres of land. The emphasis is on "trade processing". It is not clear whether there is any real market or opportunity to add value.

Exhibit 72: Yuma Project Site



The San Luis II commercial port-of-entry would enable trucks to cross easily at either Nogales or San Luis. The GYPA will develop a gateway for global trade and facilitate, promote, and support multi-modal transportation and trade opportunities to enhance economic development in the Greater Yuma area.

GYPA received a State grant to develop a Master Plan, including a Site Plan, a Utilities Plan, and a Facilities Plan. GYPA completed a Feasibility Study for a Commercial Port of Entry with a major portion of grant money coming from the state and other funding from GSA. GSA also funded a feasibility study for the present POE in San Luis. Other projects were slated for funding in FY06.

The border crossing at San Luis has become congested, and the plan is to shift the commercial vehicle (truck) crossing to an undeveloped area five miles east of San Luis.

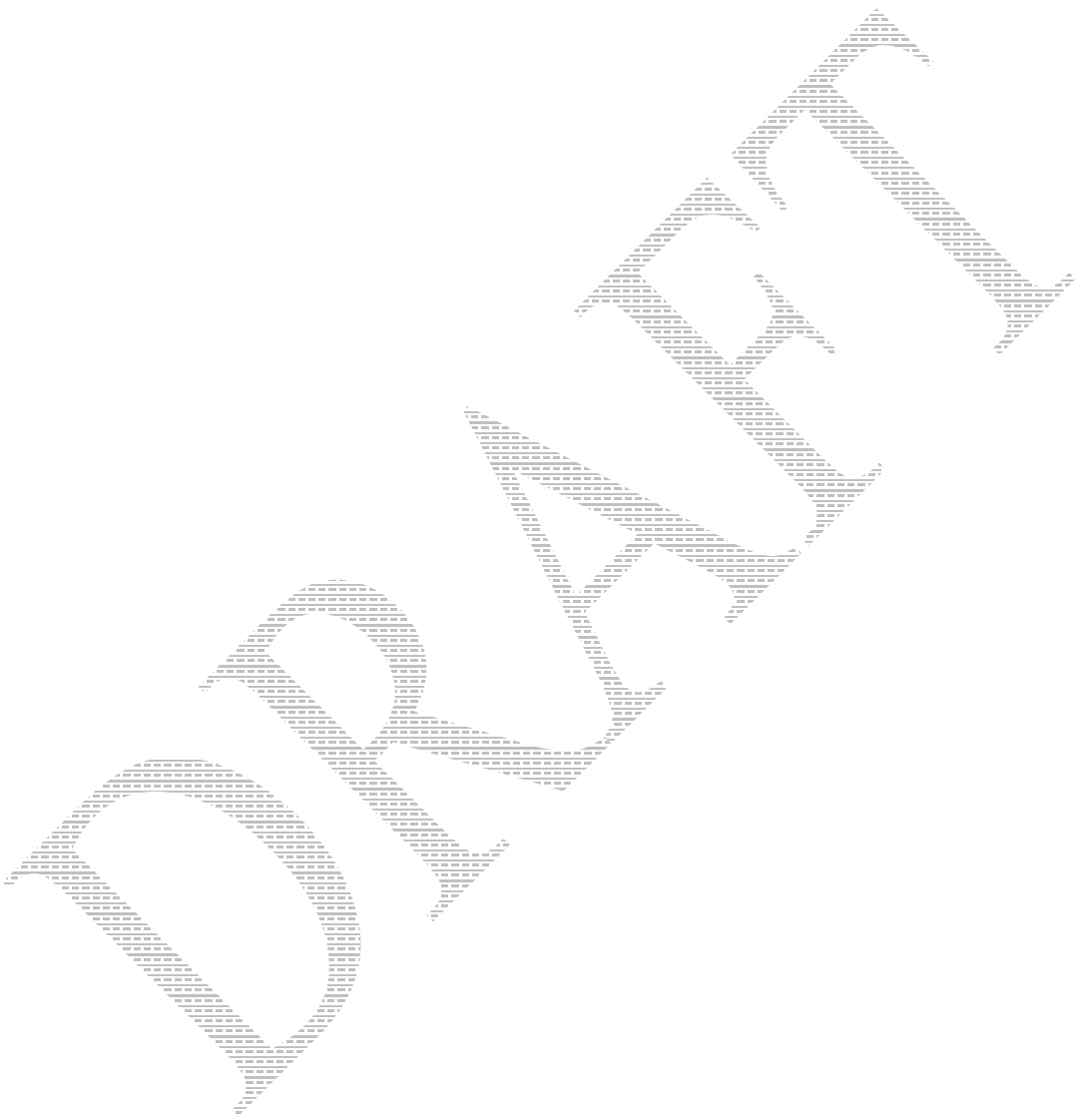
Governance

GYPA is a non-profit regional government corporation with an 11-member executive board and an 11-member technical advisory committee. GYPA's government members are Yuma County, the City of San Luis, the City of Yuma, and the Cocopah Indian Tribe.

Services

The project area already has an industrial park and a foreign trade zone.

The project appears to anticipate that a new commercial point-of-entry would serve as a catalyst for business and industrial development. Studies to date, however, appear to have focused on facilities for the POE rather than on the market for new business development.



29. KC SmartPort

Overview

KC SmartPort is an economic development initiative designed to promote Kansas City as a logistics hub (separate from the KC Port Authority). Kansas City SmartPort is not an inland port facility, but rather an organization formed to promote and enhance the Kansas City metro area's status as "America's Inland Port Solution". KC SmartPort was created in June 2001 to combine a number of previous uncoordinated efforts.

SmartPort has two main focuses in its mission.

- To grow the area's transportation industry by attracting businesses with significant transportation and logistics elements;
- To make it cheaper, faster, more efficient, and secure for companies to move goods into, from, and through the Kansas City area.

SmartPort has also been defined to serve as an umbrella over Richards-Gebaur (separate case study) and FTZ space at the airport and elsewhere.

KC SmartPort received $500,000 in federal funding for 2003 and $750,000 for 2004 through the efforts of Congressman Graves. The funds were to be used for pilot projects rather than for facilities development. The focus has been tests of wireless and RFID data systems.

SmartPort has had significant success in attracting businesses to Kansas City, specifically new DCs for New Holland and Musician's Friend.